California GARDEN

SINCE 1909 APRIL-MAY — 1965 VOL. 56 NO. 2

A CYPRIPEDIUM USUALLY IS NOT

Photo by Miles Gordon

GROOMING ORCHIDS • TEST YOUR SPRAY "SPREADERS"
DOWN TO EARTH GARDENING
EXPERT ADVICE ON HOBBY PLANTS

35 CENTS

FLORAL EVENTS

APRIL-MAY, 1965

SAN DIEGO FLORAL ASSOCIATION PROGRAMS
Third Tuesday, 8 p.m., Floral Building, Balboa Park
Chairman—Mrs. Ralph Canter
Theme for the year: "Beauty in Everyday Living."

Regular Meeting, April 20, 8 p.m.

Dr. Samuel Ayres, Jr. of La Canada, former President of the Board of Governors of the Los Angeles State and County Arboretum, will talk on "Flowering Trees and Shrubs for Southern California." He will show colored slides of flowering trees to emphasize the Five-year program of Los Angeles Beautiful, which will end in 1969, the two-hundredth anniversary of the founding of California.

Regular Meeting, May 18, 8 p.m.

Jane Minshall, Chairman of the Southern California chapter, American Association of Landscape Architects, will present an illustrated program on "Gardens of Japan." She was sent to Japan to study their gardens and make slides for the Landscape Architects.

Flower Arrangement Classes at the Floral Building, Balboa Park

For information call Mrs. Roland Hoyt, Chairman, 296-2757

1. **Creative Arts Group,** 10 a.m. - 2 p.m. Second and Fourth Wednesdays.
2. **Flower Arrangement Demonstration Class,** 9:30 a.m.
   Last Monday of each month.
   Instructor: Mrs. J. R. Kirkpatrick.

FLOWER SHOWS

April		
9-10-11	ORCHID SHOW "Artistry in Orchids"	CONFERENCE BLDG., BALBOA PARK S.D. County Orchid Society
17-18	ROSE SHOW, 38th ANNUAL "Melody of Roses"	CONFERENCE & RECITAL BLDGS., BALBOA PARK S.D. Rose Society
21-25	HOUSE & GARDEN SHOW	EXHIBIT & CONVENTION HALLS COMMUNITY CONCOURSE S.D. Building Contractors
24-25	CORONADO SPRING FLOWER SHOW	SPRECKELS PARK, CORONADO Coronado Floral Association
May		
1- 2	IRIS SHOW "Festival of Iris"	CONFERENCE BLDG., BALBOA PARK S.D.-Imperial County Iris Society
20-22	FLOWER SHOW, MEN'S GARDEN CLUB	MISSION VALLEY SHOPPING CENTER Men's Garden Club

GARDEN TOURS

APRIL

10 11 a.m. - 4 p.m. HOME AND GARDEN TOUR. RANCHO SANTA FE GARDEN CLUB. Tickets $3.50, including transportation and lunch at Garden Club.

24 11 a.m. - 5 p.m. LA JOLLA GARDEN TOUR. ST. JAMES BY THE SEA EPISCOPAL CHURCH. Tickets $2.50, including transportation and tea at Beach and Tennis Club.

CALIFORNIA GARDEN
bi-monthly magazine

Only $2 a year
(add $1 for foreign postage)

CALIFORNIA GARDEN
Balboa Park
San Diego, Calif. 92101

Please enter my subscription:

.....

.....

.....

OTHER SHOWS

Apr. 2- 4 Spring Flower Show
Golden Gate Park, Hall of Flowers
San Francisco Garden Club

Apr. 24-25 Holiday Flower Show
Carlsbad High School

Apr. 24-25 Iris Show
Mission Inn, Riverside
American Iris Society

Apr. 24 First Annual Rose Show
North Hollywood Women's Club
San Fernando Valley Rose Society

Apr. 30-May 1 Escondido Iris Show
Escondido Shopping Center

Apr. 30-May 9 Spring Garden & Home Show
Oakland Exposition Building

May 1- 2 Iris Show
L.A. County Arboretum, Arcadia
Southern California Iris Society

May 8-22 Wild Flower Show
Community Hall, Julian

May 14-15 African Violet Show,
Civic Auditorium, Santa Monica
National African Violet Society

Aug. 30 Weed Show
Community Hall, Julian

THE COVER

Hellas cypripedium,
grown by Byron Geer.

CALIFORNIA GARDEN

Among Our Contributors

Mrs. H. W. Crothers of Vista is Awards Coordinator for the Orchid Digest Corporation, and also a Judging Clerk for the American Orchid Society.

Byron H. Geer, President of the San Diego County Orchid Society, has been a hobby grower of cypripediums for twenty years. He also grows miniature cymbidiums, in fact, all types of orchids under both glass and lath. This makes his regular monthly orchid column in CALIFORNIA GARDEN magazine so valuable.

Ellsworth A. O'Bleness is President of the Men's Garden Club of San Diego and Past President of the San Diego Rose Society. He is an American Rose Society Judge and Consulting Rosarian, and has grown roses in the San Diego area for over thirty years.

Margaret M. Lee has formerly contributed articles on Begonias and their care, as illustrated in her lovely patio of begonias and ferns.

Carl F. Truby, President of the Rose Society, retired from military service, pursues his hobby of gardening by increasing his rose garden from sixty to two hundred roses. His wife is also an ardent rosarian, and with their five children, they are a rose loving family. He is also a Consulting Rosarian and an apprentice Judge.

County Fair Premiums

DEL MAR—Exhibitors at the San Diego County Fair, June 25-July 5, will be shooting for a record $130,852 in prize money. R. R. Richardson, 22nd District Agricultural Association president, said this amount of cash awards will be distributed to winning exhibitors at the county fair this year.

Heading the list is the flower show with $27,733 in cash prizes allocated for participants.

April-May, 1965

Vol. 56 No. 2

CONTENTS

Jerabek on the Copley Garden Tour ..... *Chauncy I. Jerabek* 4
Dracaena Draco to Remain 6
A Cypripedium Usually is *Not* ..... *Byron H. Geer* 8
Surface Tension in Spray "Spreaders" ..... *Dr. Donald A. Wilson* 10
The Ceanothus Section in the Santa Barbara Botanical Garden ..... *Jacqueline Broughton* 12
Specimen Orchid Plants ..... *Mrs. H. W. Crothers* 13
Japanese Arrangements, Irises and Other Plants ..... *Kan Yashiroda* 16
Roses As We See Them ..... *Ellsworth A. O'Bleness* 17

DEPARTMENTS

Cover, Garden programs, Shows, Tours, Classes, Awards 2
Contributors 3
Garden Tours for Members 7
Flower Arrangers' Guild of San Diego ..... *Mary Jane Hershey* 6
Roland Hoyt Recommends *Antignon leptopus* 15
Fifty Years Ago. City Beautiful 30
Garden Club Directory 31
A Book in the Hand ..... *Alice M. Greer* 5

CALENDAR OF CARE

Down-to-Earth Gardening ..... *Ed Ogden* 18
Orchids ..... *Byron H. Geer* 20
Fuchsias ..... *Morrison W. Doty* 22
Irises ..... *James E. Watkins* 23
Roses, and Miniature Roses ..... *Carl F. Truby* 25
Dahlias ..... *Larry Sisk* 27
Camellias ..... *William T. De France* 28
Begonias ..... *Margaret M. Lee* 29

CALIFORNIA GARDEN

Published Bi-Monthly by the SAN DIEGO FLORAL ASSOCIATION
Floral Association Building, Balboa Park, San Diego, California 92001

Office Manager—Rosalie F. Garcia Office Hours: M-W-F, 10-3 Phone 232-5762

All rights reserved.

Advertising rates on request.

EDITORIAL STAFF

Editor ..... **Vera Morgan**
Assistant Editor ..... Alice Clark
Advertising ..... Joan Betts, A. Clark

CONTRIBUTING EDITORS

Chauncy I. Jerabek, Alice M. Greer, Roland S. Hoyt, George La Pointe, Janet Richards, Rosalie F. Garcia

California Garden is on the list of publications authorized by the San Diego Retail Merchants Association. Entered as second-class matter, Dec. 8, 1910 at the Post Office at San Diego, California under the Act of March 3, 1879.

COLLECTOR'S GERANIUMS
ROAD RUNNER RANCH

Select exciting colors from our extensive collection of Lady Washington, scented, fancy-leaved, dwarf and novelty geraniums. Mixed seed also available at 2 pkts. for $1.00.

Send for catalog.

Edith and Everett Pratt
2458 CATALINA AVE.
VISTA, CALIFORNIA

RAINFORD
Flower Shop

Flowers for all Occasions
3334 Fifth Ave. *233-7101*

Jerabek, on the Copley Garden Tour

Monday, March 8, 1965

Dear Miss Greer,

Yesterday you asked me what I saw that impressed me most in the Copley garden. On the spur of the moment I just could not decide. After a night of rest, I began to evaluate what I had seen in the Copley Estate.

First, in the lathhouse area were two Blue gum eucalypti which had been trained and pruned to show their attractive branch structure.

Bordering a grassy knoll were groupings of Scotch pines, also individual specimens of Torreys and Aleppos and a Coast Redwood. The real beauty was that none of them had ever been pruned so their lower branches rested on the ground.

Despite their nakedness, the Lombardy poplars, the purple Beeches, the Sweet gums, with their unique seed capsules, and the espaliered edible Fig on the east wall of the main dwelling, certainly were outstanding, giving San Diegans a glimpse of what deciduous trees look like in colder sections of our country.

Another thing that made the place look so homey, was the wide sod pathways. Several beds had backgrounds of large trees and shrubs, while in the foreground were numerous Raphiolopis Springtime, shrubby *Echium fastuosum* and the deep blue and purple Pride of Madiera. Another interesting shrub with a creeper habit was *Ceanothus griseus horizontalis* covered with bright blue flowers. Filling up the spaces in between were many annuals and perennials, such as Stock, Snapdragon, Candytuft, Dianthus, Nemesia, Scabiosa, Anemone, Cheiranthus (wall flower) Freesia Watsonia, Sparaxis, Ixia, African daisies, Agathea and others. In another place, I noticed a patch of several kinds of single Petunias that was exceptionally showy.

Near the southwest corner of the residence were a number of the commoner *Raphiolepsis ovata,* the Yeddo Hawthorne. Each shrub was perfect, each leaf looked as if it had recently been polished. Nearby in a small patio, there was a bed with all white-flowering plants; Camellia, Azalea, Cyclamen, *Primula polyanthus.* Something different; a delightful setting.

In the area of the swimming pool were a number of the Irish Yews, a columnar form of *Taxus baccata* called *Hibernica.* On the east wall was a fountain consisting of three foxes, probably signifying the name of the place "Foxhill."

From the tiny seedlings in flats in the lathhouse to the largest of the plant life, everything was immaculate, showing that the grounds are in the charge of a professional, a lover of plants. Perhaps every tree and shrub down to the smallest flower was saying "We must look our best today; in this visiting group will be many critics."

Our time was limited, so we did not get over all the grounds but I think what impressed me the most was the way the native *Rhus integrifolia* (Lemonade berry) had been blended in to conform with the rest of the plantings. Some places it was used as a border, some intermixed with the other shrubbery to form a deep green background, with waxy foliage and pinkish bloom.

Sincerely
Jerry

A BOOK IN THE HAND

by Alice Mary Greer

Books reviewed in these columns are available for reference and circulation in the Mary A. Greer Memorial Library. Floral Building, Balboa Park. Open to members of the San Diego Floral Association.

Redwood Empire Wildflower Jewels: **Dorothy King Young. Naturegraph Publishers, Healdsburg, California, 1964, 81 pages, paper bound, $2.95.**

Dorothy King Young, wildflower hunter, conservationist, ex-school teacher, and resident with her photographer-husband on delightful Grandpa Charley's Park, possesses the knack of turning out a very "personable" little booklet.

Although designed as an aid in identifying the most beautiful wildflowers along the redwood coast of California and southern Oregon, the book is also a guide to the many flower jewels found in Southern California.

It is dedicated—and well does it carry out its dedication—to a double task; calling attention to the precious heritage in our state that is being destroyed by the advance of buildings, and urging us to assist in bringing back these wonderful wildflowers into public view for enjoyment and conservation under proper safeguards.

A popular description, happily not too scientific, of each of 120 flowers is given, along with blank spaces for individual record keeping, while its delightful little color plates of individual specimens add interest and aid in identification. Novice wildflower hunters will enjoy the few pages given over to elementary general botany instruction, line drawing method.

All told, this is a worthwhile, well-presented little book, one that any California wildflower lover or traveler would enjoy.

The Cactaceae: Descriptions and Illustrations of the Cactus Family: **N. L. Britton and J. N. Rose: Complete in four volumes, bound as two. Dover Publications, N. Y. 1963, 1054 pp. $20.00 per set of two volumes.**

From $300.00 to $20.00 is quite a jump, is it not? This is the story. The original edition (1920) of **The Cactaceae,** published and bound in four volumes with magnificent color plates, sold for $300.00. (A set is in the library of the San Diego Museum of Natural History, Balboa Park). A reprint with black photographic reproductions was put out in 1937. Now comes the second reprint, the original four volumes bound in two and selling for $20.00. One should become excited, because the publication is within the pocketbook possibilities of many more people than was the original.

Let me tell you at the outset that these are not volumes for one who craves armchair ease and light reading! Each book weighs 5¼ pounds, measures 10¾ by 7⅞ by 1½ inches, is printed on heavily glazed, thick paper, is substantially bound in buff buckram, and needs table or desk underpinning. This new Dover edition, first published in 1963, is an unabriged and unaltered republication of the second edition published in 1937. Classification, nomenclature, etc., have not been changed from the original 1920 printing, although botanists have made many changes during the years.

Britton and Rose made the first exhaustive study of the cactus family. The results were made known in 1920. Possibly after forty years their study still holds its place as top rank. In 1904 the authors embarked upon a complete re-examination of the cactus family, which for many years had been in sad disarray. They devoted 15 years in the exhaustive study, visiting virtually every region of the world where cacti were indigenous and examining collections and references, public and private.

The authors recognize three major classifications or tribes of cacti, under which they arrange and describe in full detail the 124 genera and 1,235 species of cactus. For each species they provide every bit of information that should be discovered: leaves, flowers, seed, fruit, spines, stem structure, growth habits, geographic distribution, economic uses, and relation to other species. The authors produce first-hand information concerning 120 species of cacti about which nothing was previously known.

One hundred twenty-five keys make identification of species and genera easy, as do the 1,200 illustrations, photographs, line drawings and sketches.

Every dedicated student of cacti should have this unexcelled work and it should be a reference book for teachers, naturalists, nature lovers and conservationists. The words "exhaustive, authentic, indispensable" are its insignias.

John Cole's book & craft shop
7871 Ivanhoe Avenue
La Jolla California
454-4766

Artistry in Hair Design
Charles Hair STYLISTS
1180 Rosecrans
San Diego
phone 224-3209
Virginia Georgion, Mgr.
OPEN EVENINGS FOR YOUR CONVENIENCE
WINNER OF 165 TROPHIES

FLOWER ARRANGERS' GUILD OF SAN DIEGO

ANNOUNCES

The Presence of Spring

Photograph by Mary Jane Hershey

ARRANGEMENT BY ISAMU KAWAGUCHI

The freshness of Spring, the promise of Summer has been captured by the arranger in this naturalistic Moribana scene. Newly leafed branches, combined with budding hydrangea and daffodil foliage, have been deftly placed in a low green suiban. The laced bamboo base, in deep brown color, suggests the earth from which all flora springs. The golden color of the daffodils compliments the refreshing green foliages and is repeated in the woody branches of the hydrangea. The material is so arranged that it gives the effect of sun rays penetrating into a shaded glen, reaching and outlining the pale gold hydrangea branches. This line arrangement demonstrates the importance of space within the arrangement by creating space between the flowers, by placement of the line material, and by eliminating all unnecessary plant material.

DESCRIPTION BY MARY JANE HERSHEY

GOOD NEWS FROM "TREES UNLIMITED"

DRACAENA DRACO TO REMAIN

The second project of Trees Unlimited, now nearing its successful completion, had its origin within the walls of the San Diego Floral Association. Mrs. Esther Scott called the Association on a Monday morning to get the home address of a well-known member. The voice at the clubhouse gave the required address and then told Mrs. Scott about a Dracaena Draco near her home that was showing signs of giving up because no one answered its pleas for a drink of life-giving water.

The well-known sleuthing abilities of Trees Unlimited members located the owner of the lot on which the tree was the sole remaining resident. But when they called to report back to the original informant at the Floral Building, no one could identify the person who had originated the the effort.

A report was made at a meeting of Trees Unlimited of the sad plight of the dracaena. It was learned that a Richfield Service Station was planned to be placed on the vacant block, and that the tree was apparently doomed. However, the project of studying and reporting the tree's condition was assigned to Mr. John B. Sage, a young landscape architect. He acquainted himself with all angles of the case and made a masterful report, together with site plans, showing the management of Richfield that a slight realignment of entries and exits to the station could save the tree in its present space without sacrificing the efficiency of the Service Station. Our latest news is that the management of Richfield was studying his report with every indication of a successful ending to another silent plea for help from a doomed giant belonging to an earlier era of planned beauty in this San Diego residential area.

And the voice at Floral Association clubhouse, which had started the rescue project, was identified as that of Mrs. Lester A. Wright, who has the satisfaction of knowing that many will pass and admire this tree in the future. However, few will realize the drama of its preservation for posterity.

The San Diego Floral Association

San Diego's Oldest and Largest Garden Club

Founded 1907 — Incorporated 1910

OFFICERS

President
STANLEY W. MILLER

Vice-President
MRS. RALPH CANTER

Recording Secretary
MRS. RALPH ROSENBERG

Corresponding Secretary
MRS. THALIA GRAHAM KELLY

Treasurer
MRS. J. O. CROCKER

DIRECTORS

Term 1962-1965
MAJOR EDWARD LITTLE
MRS. A. G. WENZEL

Term 1963-1966
MRS. J. TERRELL SCOTT
MRS. EUGENE COOPER

Term 1964-1967
MRS. EMMETT FOWLER
VIRGIL SCHADE

HONORARY LIFE MEMBERS

ANNIE ROBINSON TEDFORD
ROLAND HOYT
CHAUNCY I. JERABEK
ALICE M. CLARK
ALICE M. GREER
BETTY COOPER

PUBLISHERS SINCE 1909
of
CALIFORNIA GARDEN MAGAZINE

GARDEN TOURS FOR MEMBERS

Sunday, April 11, 1965

Garden of Dr. and Mrs. James F. Terrell. 4433 Summit Drive La Mesa.

This is a well established hillside garden designed by Mrs. Terrell from a planting list by Roland Hoyt. Notice particularly the pruning to shape the shrubs. There is a vegetable garden put in by Dr. Terrell. Vera Thacher Terrell has long been a member of the Floral Association and also served two years as president.

The next two gardens by landscape architect Harold Curtiss specialize in trees, usually used in groups. Mr. Curtiss was with the Pasadena Park department for many years and has been consultant on trees for other park departments.

Sunday, April 11, 1965, 2 to 5 p.m.

Garden of Mr. and Mrs. Perry De Long, 11340 Fuerte Drive, El Cajon.

Coming up a driveway lined with gray-green junipers, you face an espaliered wall of flowering pears. The view from the front of the house silhouettes a clump of *Eucalyptus citriodora* against the distant hills and a clump of flowering plums near an interesting olive tree. Beyond the breezeway, a barbecue terrace borders the pool. a group of myoporums, bordered by *Begonias Richmondii,* screens the view of nearby houses. Near the formal rose garden, note the *Eugenias Smithii* with lavender berries. Beyond this to the left, is a lathhouse with a variety of ferns and cinerarias planted around a small pool.

Sunday April 11, 1965.

Garden of Mr. and Mrs. Lee Packard, 10010 Country View Road, La Mesa.

Left on Pandora from Fuerte to Country View, about one-half block. First driveway on left, middle house. Look for a group of 3 mailboxes, then down a driveway to a white house with parking at the back. Beautiful sturdy roses in raised brick beds, with star jasmine bordering an ice-plant covered slope with jacarandas, flowering plums, poplar and chaparral. The lawn is bordered with miniature gardenias and star jasmine used as a ground cover. From the front of the house, with a wide view of the whole valley, an ivy covered slope has a planting of camellias and other shrubs near the house and chaparrel beyond.

You are invited to join

The San Diego Floral Association

Classification of Memberships:
Individual .....$ 3.50
Family .....$ 5.50
Sustaining $10.00
Contributing $25.00

- Monthly meetings featuring outstanding speakers
- A 500-volume library for your use
- Membership includes subscription to CALIFORNIA GARDEN bi-monthly magazine.

San Diego Floral Association
Balboa Park, San Diego 1, Calif.

Please enroll me as a.....
member. Enclosed is.....
.....
.....
.....

A CYPRIPEDIUM

USUALLY IS NOT

by Byron H. Geer

That which we call a Cypripedium by any other name would be as charming, and this is a fortunate happenstance since that which we usually call a Cypripedium is no such thing. Cypripediums there are, indeed, but even the dedicated Orchid growers can count on the fingers of one hand the number that they have actually seen cultivated in Southern California. Botanical nomenclature for the Cypripedium tribe (Cypripedileae) was a completely confused mess for approximately one hundred fifty years, and, though the matter was firmly and definitely resolved about eighty years ago, the name Cypripedium was so identified with anything even remotely resembling a 'ladyslipper orchid' that the name has stuck to this day. It is applied by Orchidists and commercial dealers alike to a spectacular group of Orchids closely related to the Cypripediums, but readily distinguishable from them. It is this group, correctly called Paphiopedilum, which is commonly seen in Orchid collections and shows.

The story of this confusion dates back to the year 1753 and reads like the Comedy of Errors. In that year Linnaeus, the founder of modern botany, named and described certain plants of Central Europe and the Mediterranean as Cypripediums. The plants on which the genus was founded were primarily hardy terrestrials, temperate or sub-tropical in distribution, possessed a plicate leaf structure and a one-celled ovary within the flower. Linnaeus took his name, with a certain amount of allowable poetic license, from the Greek 'Kypris-Podion,' literally a little *foot* of Venus. His description and classifications were accurate and they still stand as written, as does the name he coined.

During the next hundred years additional botanical material was brought into Europe which closely resembled the Cypripediums in flower or leaf structure or both. These were commonly called Cypripediums until the great German botanist Reichenbach founded a new genus within the tribe which separated out from the original group these species similar to the Cypripediums in flower except for the three-celled ovary. To this group he gave the name Selenipedium. For the next thirty years all was quiet on the Ladyslipper front, then in 1886 another great botanist named Pfitzer set up a third genus to encompass the tropical species with conduplicate leaves. To this genus he assigned the name Paphiopedilum, and it is this group of species with their hybrids that are commonly seen today. Pfitzer also moved species formerly in Selenipedium but having duplicate leaves and a rolled in margin to the pouch of the flower to a new section called Phragmopedilum. It is interesting to note in this connection that Dr. Pfitzer used as a base for the suffiix on his new genus the Greek 'podilon' meaning slipper. Only ten years passed before still another botanist got into the act. The year 1896 brought forth a study by R. A. Rolfe in which he retained the three previous genera and established a new genus to take in the Phragmopedilum section of Dr. Pfitzer. Dr. Rolfe felt, too, that it would be logical to end all four established genera in the same suffix. Accordingly, he changed Pfitzer's Paphiopedilum to Paphiopedium.

It might be conjectured here that Dr. Pfitzer was somewhat piqued at having his work altered. In any case, he set to work and compiled the first extensive monograph on the Cypripedileae. In this monograph he accepted the four genera established, but he apparently was sold on the 'slipper' suffix, for he maintained the four genera under the names Cypripedilum, Selenipedilum, Paphiopedilum and Phragmopedilum. Dr. Pfitzer, like Dr. Rolfe before him, must have been aware that under sound principles of botanical nomenclature the earliest given name for a genus must stand. With these principles in mind therefore, the confusion resolves itself as follows:

CYPRIPEDIUM • (Linnaeus—1753)
Fifty species spread over temperate and tropical zones of the old and new world. Primarily hardy terrestrials. Distinguished by plicate leaves and one-celled ovary.

SELENIPEDIUM • (Reichenbach—1854)
Three species, all South American. Distinguished by plicate leaves and three-celled ovary.

PAPHIOPEDILUM • (Pfitzer—1886)
Fifty species from tropical Asia, Malayan Archipelago, Indonesia and the Philippines. May be terrestrial or epiphytic. Have duplicate leaves and a one-celled ovary.

PHRAGMIPEDIUM • (Rolfe—1896)
Twelve species, all South American. Margin of pouch on flower rolls inward. Duplicate leaves and a three-celled ovary.

It is this third group which we grow in our gardens and greenhouses and know familiarly as 'Cyps.' We call them by an incorrect name, but this has been going on for one hundred or so years and, since I prefer to be understood rather than to be correct, I shall refer to them as Cypripediums in this article.

The Cyps are becoming increasingly popular in the Orchid world, and deservedly so. Species have always been found in the larger collections, but it is only within the last twenty years that the large flowered, showy hybrids have become available in quantity at reasonable prices. They are not easy to hybridize and even when a seed pod hangs on for its full nine to eleven months there is often little or no viable seed. The pollen does not keep, as does the pollen of most other Orchids, therefore it is almost a necessity to achieve mating while plants are in flower. To add to these difficulties, the Cyps seem to be completely mixed up in their genetic make-up. Twenty-six chromosomes per reproductive cell is the standard diploid number, yet many Cyps vary with up to thirty-nine. When crossed with species having an uneven number of chromosomes, or with triploid or tetraploid parents, a mismating of the chromosomes generally occurs. The end result is sterility with no seed; partial sterility with a small amound of seed which germinates poorly, or seedlings which in themselves grow and bloom quite freely but will not hybridize. It is no wonder then, that the hybridizing of Cyps is a specialty unto itself. With the increasing knowledge of genetics, and especially the recent techniques of chromosome counting, 'planned parenthood' may be expected to eliminate many of the current problems. Within a few years Cyps may be a common garden flower.

If this is to be the case, it behooves us to know something of their culture and a brief botanical description of the genus may be in order here.

PLANT—generally terrestrial with short stout rhizomes, no pseudobulbs, bearing two rows of alternating leaves. LEAVES — narrow and strap-like, folded down the center, channeled on the upper surface and keeled beneath; green, mottled or tessellated, sometimes stained with dull purple. INFLORESCENCE — from the base of the leaves, erect, nodding or arched. SCAPE — frequently hairy, bearing from one to several bracts at the base of the flowers. FLOWERS—one to several, large, showy, waxy or leathery in texture. SEPALS—spreading, dorsal sepal free and prominent, ventral sepals fused into one and located behind the lip. PETALS—free, much more narrow than the sepals, adorned with hairs, spots or warts. LIP—inflated, slipper-shaped, lateral lobes small and turned inward, inner surfaces usually pubescent. COLUMN—short and terete, usually covered with erect bristles, bearing two fertile anthers, one on each side behind the stigmatic plate, the third anther modified into a shield-shaped staminode which covers and conceals the column, anthers and stigma. POLLEN—granulose, usually covered with a sticky fluid. OVARY—single celled.

Photo by Miles Gordon

Corsair cypripedium, grown by Byron Geer.

Because of the varying natures of the species, generalizations on cultural conditions may be made only in the broadest sense. Basically, they may be divided into two groups: (1) Warm growing types with mottled leaves; (2) cool growing types with solid green leaves. These differences are not absolute, however, primarily due to complex hybridization between the two groups. Both groups will grow quite well with daytime temperatures in the low eighties; the mottled leaf species prefer night temperatures no lower than 55 degrees, while the green-leaved group will tolerate the low forties. Variation in these suggested temperatures, either to the low or the high side will do no damage with the limitation that such variation must not be continued for long periods of time. The light requirement for all Cyps is among the lowest in the orchid family. Normal culture should provide 20%-30% full sun, but they will accept deep shade and thrive under those conditions. The only thing to watch for under low light intensity is the inception and spread of bacterial rot or fungus. The plants have no pseudobulbs or water retention mechanism, consequently they must never be allowed to dry out. Watering practices will depend on weather and the environment of the plants, with good common sense being the chief governing factor. Overhead watering is not recommended by the authorities, but I have seen no major damage result where overhead watering is consistently done. In all cases a free movement of air is essential. Stagnant, quiet air is to be avoided, but strong drafts or blasts of heated air are just as bad. Potting mixes for the Cyps are matters of personal preference. A growing medium should be porous, well drained, moisture retentive without staying soggy, inexpensive and easy to handle. There are many things that combine all these requirements including leaf mold, shredded bark, osmunda, fibrous loam and sand, and Cyps are successfully grown in all of these.

Potting is best done immediately after flowering, and plastic pots should be used if possible. Cyps seem to react adversely to the build-up of alkaline salts which is inevitable with the use of Colorado River water. Root tips will reach the edge of a clay pot and promptly burn, and the plastic pot seems to be the best answer. Division into smaller plants may be made at the time of repotting, but don't

divide too severely. Allow three crowns minimum to a new pot to insure survival. Smaller divisions may be made, but new growths are sturdier and more healthy when there are one or two old growths to support them. Gently shake or twist the plant to determine where to divide. In most cases the Cyp will separate readily at a natural division. Pot with the base of the leaves just at the top of the compost, leaving no roots exposed. Tamp the mix in thoroughly, but do not pack hard. Old leaves and dead roots should, of course, be removed when repotting. There are two schools of thought regarding the feeding of Cyps. Some growers hold that when grown in an organic type compost no food is required. I can't disagree with this, but I do feed my Cyps the year round on the theory that they are never completely dormant. Perhaps my growing conditions are different, but I find that even while they are in flower they are also pushing out new growths. If there is leaf growth, there must also be root growth, and feeding would seem to me to be indicated. Good judgment dictates a smaller amount of fertilizer through the winter months and I do accept this premise. Perhaps there is sufficient food value in an organic compost, but Cyps grow better and flower more freely for me when I supplement their compost diet.

Nothing has been said here about the blooming habits or seasons of the Cyps, and this cannot be omitted. In size they may range from two to five inches, and even the small ones are a spectacular show. They frequently have the waxy texture of the Andreanum Anthuriums and some people object to them simply because they look artificial. Keeping qualities, both cut and on the plant are excellent, with and average Cyp holding for four to six weeks. They combine readily with other material and are invariably conversation pieces when used as corsage or flower arrangement bases. Colors run from the whites and creams through yellows, greens, browns and maroons with every conceivable combination of tints and shades in these colors. They bloom freely and with proper selection of species and hybrids may be kept in bloom for twelve months of the year. Not many other garden plants that can be used also as house plants can boast as much. They take up little space and give a great reward for minimum care as a growing number of Cyp enthusiasts can attest. Won't you join us? Try one or two, but leave room for more. You'll want them.

HOW TO TEST

SURFACE TENSION in SPRAY "SPREADERS"

by Dr. Donald A. Wilson

If one observes a drop of water on a waxed surface it is evident that there must be some force acting within the surface of the drop tending to pull the drop into a spherical shape. Roughly the same sort of force accounts for the spherical shape of a soap bubble or an oil droplet suspended in water. This force, acting equally in all directions, accounts for the spherical shape—a form enclosing the most volume in the least surface. Nature always tries to be economical in its physical manifestations (the second law of thermodynamics). This force is called surface tension and is defined as a force per unit length. In the metric system, as usually expressed, surface tension is measured in dynes/centimeter.

Returning to the drop of water on a waxy surface, for example a rose leaf, if there were some way of lowering this surface tension, the drop would have less tendency to form a spherical shape. If more and more surface tension lowering were attained, the drop would become less and less distinct until that surface tension value was reached which would allow the drop to spread freely over the waxy leaf surface or "spread." Many chemicals which have this surface tension lowering ability are known, and those which have it in high degree are known among gardeners as "spreaders." Chemists know them as surface active materials.

In order to obtain the best distribution of spray material over a leaf surface, it is therefore much more efficient to have just the right amount of "spreader" in the spray mixture to cause this spreading phenomenon. However, with the addition of excess spreader it is possible to reduce the surface tension of the spray mixture to such an extent that penetration of the leaf cellular structure results, causing damage of more or less severity.

Now let's consider the facts of gardening life. Practically every manufacturer of spray material, fungicide, pesticide, foliar nutrient, chlorosis cure, leaf polish or whatever, is well aware of the desirability of having his material as effective as possible, so these preparations all have spreaders added to the formulation if they are not in themselves surface active. In addition, the serious gardener knows that spreading is desirable. It therefore often happens that the week-end spray application contains (1) a fungicide (2) a pesticide (3) trace element chelates and (4) foliar nutrient. Also, since a spreader is supposed to be desirable, our gardener throws in a teaspoonful per gallon of a kitchen detergent or a commercial "spreader-sticker." This horrible spray mixture has a lot to be said against it, such as too high osmotic pressure, but also very importantly, the resulting surface tension is so low that leaf damage through intercellular penetration is bound to result since each product added probably has its own "spreader" in the formulation.

Even if a single spray material at a time is used, one should be very careful that a "spreader" is needed before adding one. Also, liquid kitchen detergents are very powerful surface active agents and one should be certain that just the right amount is added when needed.

One way of being sure is to have a method of measuring surface tension that is quick, convenient, easy to interpret and sufficiently accurate for home gardening. Most methods are so involved and tricky that they are not worth discussing in this context. However, one, the drop method, is readily adaptable. Since surface tension regulates the size of drops from a dropper, if we were to count the drops delivered from a given volume of our spray mixture and compare this number with the number of drops from an equal volume of a standard liquid such as pure water we would have a measure of the surface tension of the mixture as compared to that of water.

It is not necessary in this paper to derive the equation so take it on faith that the relation is

$$\text{Surface Tension of Spray Solution} = \text{Surface Tension of Water} \times \frac{\text{Number of Drops of Water}}{\text{Number of Drops of Spray Solution}}$$

or $$T_{soln.} = T_{H_2O} \frac{N_{H_2O}}{N_{soln.}}$$

The surface tension of pure water can be safely assumed to be 73 degrees/sm. at ordinary room temperature, so this becomes

$$T_{soln.} = \frac{73\ N_{H_2O}}{N_{soln.}}$$

The determination itself is easily performed. Get an ordinary medicine dropper and fill by pressing the bulb between thumb and forefinger and releasing with the tip underwater. Do not attempt to get more water than is easily visible near the bulb. Mark the position of the meniscus by pasting a small straight piece of paper around the dropper as carefully as possible. Now experiment with water, pulling water up to the same mark and counting the number of drops necessary to empty the dropper completely. Do this a number of times until you count the same number of drops each time you empty the dropper. Always hold the dropper vertically. If you have used a clean dropper and pure water, this will establish the number of drops of water to be used in your calculation.

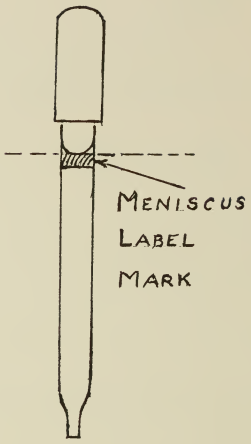
Now do the same with an unknown spray solution and when you are satisfied that you have the right number of drops representing that solution, the surface tension of the spray solution can be calculated. For example, a typical dropper delivered 21 drops of pure water and 34 drops of a spray solution. Dividing 21 by 34 gives 0.62 and 0.62 times 73 gives 45 dynes per cm. for the surface tension.

Always rinse the dropper thoroughly with water when finished, because dried dissolved material might affect the next determination.

Of course the next question is what should the surface tension be for best and safest results? Horticultural literature is strangely silent on the matter. There is evidently a wide spread of surface tension values used. Rose leaves vary greatly in surface wax, and a solution which will spread on one will not spread on another. Generally speaking, the waxy, shiny leaf is the healthy one and the tender one is that upon which a solution will spread most easily and will damage most easily. Therefore, the criterion used here is to have a solution which will just tend to spread on a tender leaf and not on a healthy waxy leaf. In the experience of this writer, this is a solution having a surface tension in the range of 45 to 50 dynes/centimeter.

Using this method, the following surface tension measurements were made to indicate the range one might expect and to show how little "spreader" is required to reduce the surface tension of water markedly.

Material	Strength	Surface Tension
Spreader-Sticker (Alkyaryl	1 tsp/gal	36 dynes/cm
Polyoxyl Glycols Alkylary)	¼ tsp/gal	48 "
	1/16 tsp/gal	67 "
	1/64 tsp/gal	73 "
Liquid Detergent #1	1 tsp/gal	34 "
	¼ tsp/gal	46 "
	1/16 tsp/gal	59 "
	1/64 tsp/gal	64 "
Liquid Detergent #2	1 tsp/gal	33 "
	¼ tsp/gal	46 "
	1/16 tsp/gal	61 "
	1/64 tsp/gal	64 "
Volck - Dormant Strength	10 tbs/gal	45 "
Terr-o Vite	2 tbs/gal	44 "
Copper Oleate - Nicotine		
Comm'l. Preparation	2 tbs/gal	38 "
Acti Dione PM	2 tbs/gal	45 "



Notice that all by itself ¼ teaspoonful per gallon of liquid kitchen detergent or commercial spreader sticker will reduce the surface tension of water to a level almost below the criteria established above (45-50 dynes/cm). It should be remembered that lowered surface tension is not the only cause of spray damage. Certain chemicals in themselves are harmful, but intercellular penetration will certainly intensify harmful chemical action and it is one characteristic of spray mixtures over which we have a measure of control.

References

"Spreader - Stickers," Dr. Thurmond Williamson, American Rose Society Magazine, Vol. 15, p. 8, No. 12, Dec. 1959.

"Beware of Spreader-Stickers," Cynthia Westcott, American Rose Society Magazine, Vol. 16, p. 29, No. 8, Aug. 1961.

Warning note on p. 27, Vol. 16, No. 24, Dec. 1962.

The Ceanothus Section

Santa Barbara
Botanic Garden

by Jacqueline Broughton

A branch of Greenbark Ceanothus, *Ceanothus spinosus,* displaying the abundant pale blue flowers. Santa Barbara Botanic Garden.

Ceanothus, in every shade of blue, and in all its various shapes and sizes, is in full bloom now and is on display at the Santa Barbara Botanic Garden. This genus of shrubby plants, sometimes known as California Lilac, produces white to blue and, rarely pink, flowers and contains many members of high ornamental value.

The Ceanothus Section of the Santa Barbara Botanic Garden has always been a main point of interest. Here, paths wind through a variety of flowering shrubs, Redbud, Nevin Barberry, Fremontia, and Gooseberries, and the fine collection of Ceanothus from various parts of California. **Ceanothus cyaneus** from San Diego County, **Ceanothus griseus,** Carmel Ceanothus, from the Monterey Peninsula, **Ceanothus jepsonii** from Marin and Sonoma Counties, and **Ceanothus purpureus,** Hollyleaf Ceanothus from the Napa Range, are among a few of the plants on display there.

The season began in early January when large specimens of Bigpod Ceanothus and its variety with pendulous branches were covered with fragrant white flowers. Now, Greenbark Ceanothus bearing large sprays of pale blue flowers contrasts with the horticultural varieties Concha, Sky Blue, and Blue Cloud which are deep blue in color, and with Coast Ceanothus and Hollyleaf Ceanothus, both with lavender flowers.

Ceanothus is a group of shrubs restricted to North America. It contains about fifty species, most of them native to California. They vary in size and shape from ground covers such as Carmel Creeper, to small trees up to twenty-five feet tall such as Catalina Ceanothus and Greenbark Ceanothus.

Blue-flowering shrubs have always been of interest to horticulturists because of their relative rarity. A white-flowered Ceanothus from the east coast was introduced into Europe as early as 1713, but its blue species did not come into cultivation until the 1800's. The 19th century plant collectors, Douglas, Nuttall, Hartweg, and others sent seeds and plant material to Europe for introduction into gardens.

By the early 1900's this group of plants began to gain favor in California. After its founding the Santa Barbara Botanic Garden became a center for the study of Ceanothus. One of the world's finest living collections is found here, and a major work on the subject was published by the Botanic Garden in 1942. This, unfortunately, is now out of print.

Since that time the Garden has worked on the horticulture and propagation of the group and has found improved methods for culturing and caring for these plants. In addition to the true species, there are also many garden hybrids and horticultural selections. Ceanothus 'Far Horizons,' developed at the Botanic Garden recently, is a low-growing, compact plant with bright blue flowers and an early blooming period. This new variety is now available in limited quantity in the nursery trade.

A trip to the Santa Barbara Botanic Garden is rewarding at any time of the year, but more so in the spring, and the Ceanothus Section is not to be missed. The Botanic Garden, which is located in Mission Canyon one and a half miles north of the Old Mission Santa Barbara, is open every day from 8:00 a.m. until sunset.

SPECIMEN ORCHID PLANTS

by Mrs. H. W. Crothers

The term specimen plant can mean different things to different people. To the gardener of an estate in Victoria or Vancouver, B.C., where we saw some marvelous "specimens," it can mean an evergreen tree clipped and shaped over the years to resemble an elephant, a ship, a dragon, or any other thing the gardener fancies. Or it can mean a tree or plant standing alone, cared for in such a way as to achieve greatest beauty or foliage and flower. To each sub-section of gardening it can mean a special thing as it applies to the plant type in which the gardener is interested.

In the Orchid Grower's Manual, Williams 7th edition, published in 1894, is a chapter on growing specimen orchid plants for exhibition. It mentions that some grand specimen plants had formerly been produced in English orchid ranges, and that there had been great interest in them, and great pride in growing them; but that later it became the practice to "make-up" a plant by grouping several like plants into a container to grow into a mass that would be exhibited as a specimen plant. Then the author proceeds to tell the best ways of producing this latter type of plant. Also, he says of the shows that "while it is permitted, of course the making-up instead of growing of specimens will be continued."

We could find very little in current literature concerning specimen plants, but the American Orchid Society Handbook on judging covers this subject briefly as follows: "Specimen Plant (in schedule)—a single plant—not a made-up plant, exhibiting unusually fine cultures." Now, if you think about this, it is not much to go on. However, it gives the orchid judges a great deal of latitude; which is probably a good thing. Their chief limitation is that the plant shall be all in one piece, and this rules out what Williams 7th edition has told us about growing specimen plants.

Now, having found no very usable definition of our subject, I am going to give a definition of my own. A Specimen Plant should have no blemish on it. A plant with dusty or algae-covered leaves, or with mold on it, or with parts of the plant broken or damaged, is not, in my book, a specimen plant. The plant must be clean, unbroken, un-damaged in any way. It must be in flourishing condition, large for its kind and for the climate in which it was grown, and preferably in bloom. I would consider, however, that flowers are not necessary; the plant is a specimen whether in bloom or not. If it is to be offered for judging, of course, it must be in bloom also. This is a large order. If plants were measured by this yardstick, there would be fewer of them offered for this award.

The reward the orchid judges are able to give for such a plant is the Certificate of Cultural Merit, commonly called C.C.M. This is not secondary to the Award of Merit as some suppose. The Award of Merit is given to the *plant* for producing superior flowers. The Certificate of Cultural Merit is given to the *grower* for a masterpiece of culture. Each award is only given if the plant has a score of 80 points. For the cultural award, the plant need not be of the finest quality; it need only be grown superlatively. It is a wonderful feeling to receive this award, so now let us see how to proceed to attain it.

Many so-called specimen plants are shown which in reality are plants gone wild in the greenhouse. They are over-grown; choking themselves; battling for the space, the food, and the water that should be provided every leaf and root. In many instances, the grower thinks it is a great achievement that the plant is big; when bigness is not the main yardstick. It *is* an achievement to grow them big; but it is more of an achievement to grow them big, and fine *all over,* so the grower must look for the plant that will lend itself to this sort of growing.

The first requisite of a specimen plant is that it grow close-coupled. This is, with short spaces between the growths. The plant that 'gallops' across the pot, breaking one eye at a time, and that eye far out from the last growth, is not a good subject for a specimen. It will take too much room, and it will never produce the head of bloom required.

Next, the plant should break multiple leads—and flower on them. Some plants have a 'habit' of flowering, just as some plants refuse to flower. This is an inherited factor and some plants have it, and some do not. I believe our best example of multiple leads was the plant of *Blc. Caligula* 'Magnifica,' FCC-RHS that grew eight leads while still in an eight inch pot, and flowered two flowers on each of them. It was a sight to see, even though by today's standards, it is not a fine quality flower. I have never tried to grow this plant to bigness, however, because the flower stem is short and the flowering habit is to make only two flowers per stem. A specimen plant should be more floriferous than this.

The flowers do not have to be the best form, though they should be reasonably good. We have seen some very large plants with flowers so poor one wondered why the owner kept the plant long enough to grow so big. On the other hand, at the Honolulu Orchid Show, October 1959, we saw a Vanda Mabelmae Kamahele, A.M. AOS, that was so well grown that it was given a Cultural Certificate at the show. This was a real triumph—to have a plant so fine, and to grow it so well.

So now let us choose the plant for specimen growing. Whatever species or hybrid, it should grow close-coupled, should break multiple leads and flowers on them, and should be as good form of its kind as can be found, should grow vigorously, and should be more floriferous than others of its kind. This is the plant that will pay for your care. Looking over your plants, you will notice an oc-

casional one that fulfills these requirements and begs for special growing.

Now that you have your plant selected, it will need constant watching. Do not let it wander off over the edge of the pot before shifting it to a larger container. When the next growth would go over the edge, shift the plant before that growth comes. Be careful of water so as not to rot off the older roots, and then shift the plant carefully to retain the root-ball intact. If you find that the plant is all root-sealed to the inside of the pot, shatter the pot with a few careful blows of a hammer, and then, leaving the shattered pot still in place, proceed to put the plant into the larger container and fill around it with potting material. The old pot pieces will do no harm if you have established drainage sufficiently by breaking them. It is much better not to damage the roots by trying to remove them.

If you lose the older roots, the leaves will show it by losing their plumpness, and your plant will lose its good looks. Whenever a plant goes over the edge of the pot you are in trouble. Growths will grow at all angles, horizontal or crooked. The rhizome will get kinks in it, and the internode spaces will lengthen. Everything goes wrong. Catch your plant in time, and give it potroom.

If you should lose a leaf or two at the back of the plant, then granting that it is already a large plant, cut out the entire pseudo-bulb above the 'eyes' without damaging the rhizome. The chances are that with the added room inside the plant, new growths will initiate there and fill the hole. A large plant can stand some careful surgery and be the better for it. I like to remove the leafless bulbs from inside the plant. They do not help the looks nor do they aid the plant.

Be careful of water. The larger the plant is, the more careful you must be. A large plant will get along very well, and the older roots continue in good health, if you only water at the front of the plant, or put water only around the edge of the pot, if the plant is growing in all directions. Also, the larger the pot, the longer the intervals between waterings should be. This has the added advantage of lengthening the time the compost remains in good condition at the back of the plant. A good rule of thumb is to touch the clay pot with a wet hand. If you 'stick' to it, the pot is thoroughly dry. The clay gets very thirsty when the pot it dry, and the wet hand is a good way to test it. On the other side of the coin, do not deprive the plant of water to the point of dehydrating it.

One more thing to watch as the specimen plant is growing; the time comes when the plant that breaks multiple leads will have one lead that wants to cross over the rhizome, or over another lead. Here again is the start of trouble. This is the time to take your shears again and do a little careful surgery. You can simply cut off the offending lead, or you can remove a one- or two-bulb propagation, cutting out the offending lead to prevent tangling of the rhizomes. In the end, the plant will more than compensate for this lost lead, and will make other growths in better places. Many plants have this tendency to tangle, and if allowed to cross and re-cross themselves they will in time choke themselves into a decline. When the plant becomes so tangled, it will begin to go down-hill, and there is no way to bring it back. You may as well forget it was a specimen, and cut it into divisions and start over. What all this means to the grower is that a specimen plant is cared for most particularly all the way. A few months of neglect and the 'specimen' is not a specimen any more.

When the time comes that your plant is starting the many blooms that you have been waiting for, and you realize that this is the time it is going to be especially fine, then you take it and give an extra-careful grooming. Remove any blemished parts of it such as broken leaves, blind sheaths, leafless pseudo-bulbs, or anything that could detract from the plant. Do this before the buds are very far advanced so that you will not have to be working over the plant when there is danger of damaging the buds. Wash the leaves on both sides so they will be clean. Do any tying or supporting of growths that seem to be needed, and prepare the plant for exhibit. Then put it back in its place and wait for the flowers to come. You will be fortunate if the flowers all come at one time. That is the biggest show. However, if some came early and are fading before the rest are out, then remove the older ones, for they will detract from the whole picture. This is to be perfection when you show it.

Now, like your favorite child all dressed for a party, you take your specimen to show it off! A proud day!

Photo by Miles Gordon

Minneken miniature cymbidium, grown by Byron Geer. A good specimen type with green over bronze color.

ROLAND HOYT* RECOMMENDS

ANTIGONON LEPTOPUS

The folk-names that come of ordinary people for plants are frequently, in fact usually more expressive than the coldly exact denomination of the botanist. This is surely true from the standpoint of sentiment and appreciation of aesthetic characters. It has always seemed to me much to be regretted that Standard Plant Names insists on repeating as a vernacular name, the translation of the botanical one where a former does not exist. It would appear that the common name of a plant might be left to the common people, those in gardens and elsewhere who work with and love the individual. That has been the way in the past, but we move more rapidly now. After all, we have the scientific to designate the plant precisely. Why clutter up our lists with an equivalent when someone sooner or later will arrive at a more fitting and expressive term.

This will usually end up more descriptive of the thing we see and with a feeling that the botantist would in all probability have overlooked or found unsuitable for his purpose. They tell us that botany is a living science, subject to growth and change and in the horticultural field we know that to be true . . . how well we know. So here is a bid in the nature of an overture, a suggestion that we await a proper common name for these untouched spinster species until the people find one. If the past is any indication, it will be one "indigenous" to commonality, a commoner that tells the story of the love of humanity for nature and its particular parts.

This blurb comes of the vernacular naming of the subject species above. These several names compare with the scientific dead language meaning of "slender stems, grooved and angled." This is verity and in order, but a rather remote summary of the least visible facts about the plant. Over the years, this same plant above has found a place in the life and language of two peoples and from their hearts have come various expressive terms, localized possibly; but set, fixed, acceptable, agreeable. Hear these then and know your Antigonon as it is seen. . . . Rosa de Montana, Love's-chain, Corallita, Pink-vine, San Miguelita, Heart-vine and even Confederate-vine as it moved northward . . . all these of the spirit, home-bred with simple, very obvious meaning. Properly, it should be the place of a standard plant study only to pick and list the most appropriate existing name and place it alongside the botanical designation. The scientific name could serve in other cases until a suitable common one turned up. Look at any nursery catalogue and note how well it will serve.

Strange it is, that this delightful vine, its quality attested by this plethora of names, should be so seldom seen in California. True, it is from the tropics, but high for hardiness and I am sure it can be used the length of the state. It acts as a typical herbaceous perennial from tubers that carry through ordinary frost . . . heavier if mulched. In Florida and along the Gulf Coast, it flowers continuously in absence of deep cold. I have seen it in Mobile, Alabama covering the front of a large house on the street where it was especially appropriate and appealing with the iron grill work. In California, it retires into the bulb over winter and doesn't get back into business until late summer next or fall . . . then a pink or rose-colored open spray of heart-shaped flowers with a tendril at the end of each raceme . . . and quite freely although loosely. There is a white form found from time to time which is much less vigorous.

This vine wants warmth in both soil and exposure, if best production is expected. Give it a loamy soil of as much depth as may be had. Keep it moist while in growth, but dry as may be after that has been completed and flowering set in. The species is very slow to establish for maximum flowering and more deliberate in coming on as a plant. This puts a premium on procurement of a well grown specimen, either as a tuber for size or as a well-filled container. This is truly a vine of gentility, one of good birth and breeding for the garden or most any place around the home. It is one to be treasured over many years, placed well in the beginning and protected for a long future of service.

*Fellow ASLA, author of *Ornamental Plants for Subtropical Regions.*

HOUSE AND GARDEN SHOW—COMMUNITY CONCOURSE

Numerous garden and floral displays, highlighted by a 30 x 10 foot exhibit arranged by the San Diego Floral Association, will be on view at the House and Garden Show, April 21-25 at the Community Concourse.

Mrs. Roland Hoyt, wife of the prominent horticulturist and contributing editor of CALIFORNIA GARDEN, has been placed in charge.

Other area floral shops, patio and outdoor masonry suppliers and even the Pest Control Operators of California, Inc. will appear at the House and Garden Show.

And of special new interest to many will be the displays set up by the San Diego Potters Guild and the International Pipe and Ceramics Company. Garden buffs may find some new ideas for decorative effects from these experts.

Entertainment will be provided at intervals each day of the House and Garden Show. O'Toole has billed an ice-show troupe to bring to San Diego's Community Concourse for the first time, a show called "Spice On Ice." There is no added charge for visitors to see the ice pageant.

The House and Garden Show is sponsored by the San Diego Building Contractors Association, in an effort to bring new ideas for the house and garden to the enterprising homemaker and her handyman husband.

NOTES ON

JAPANESE FLOWER ARRANGEMENTS

IRISES, ROSES AND CYMBIDIUMS

by Kan Yashiroda
Tonosho-cho, Kagawa-ken, Japan

Irises are a favorite material for Japanese flower arrangers old and new. Even in a workaday plantsman's library, which is mine, the flower arranging books published in the eighteenth and nineteenth centuries dealt exclusively with iris depicted in naive but vivid wood-cut prints, are found not less than ten. Once upon a time when the American flower arrangers in Japanese styles were not yet advent to Japan, so to speak, I had been a critic to a leading Japanese flower arranging magazine and had naturally come to receive numerous photographs of flower arranging. In those days, Japanese traditional styles were exclusive in every school, and no man had ever dreamt of the flood of the modern abstract flower arrangements seen in the shows, classes and the magazines nowadays. Two or so weeks ago, a noted flower arranger from Osaka called on me and asked for materials for his flower arranging show. The material he had selected at my Acclimatization Garden was 8 or 9 dried, fallen Washingtonia palm leaves with stalks, dried Livistonia palm leaves, dried Cocos (Butia) palm's spathes, half-decaying Phoenix leaf-stalks and only living thing he had picked up was a few sprays of Smilax **(Asparagus asparagoides).** It shows you how abstract is fashionable. So prevailed that I had been come to so many whom do not know even the meaning of the word 'abstract' itself and to find so many 'sheeps' whom make me wonder why Japan is being a top buyer of wools in Australia! I recall that when I had contributed to a magazine published by Ikenobo School an article entitled 'Flower Arranging without Base' in 1946, I had heard some rumors about it that I am talking nonsense. By the way, it is not my new idea, but the attempts are known in history. Anyhow, abstract arrangement spreads as a fever but recently the old belittled ways are coming to have a new understanding.

Photo by Kan Yashiroda, Japan.

The excellent arrangement with camellia and wisteria vine shown in the February-March number of the CALIFORNIA GARDEN gave me a rejoice and encouraged me to show you some from my old collection of pictures.

[Sorry, could use only one. Ed.]

The informal design, especially in arranging the leaves, with one flower and eleven leaves of Japanese iris should be better settled with the container if the leaves were massed more lightly towards the base. However, the pleaching of leaves at close to the base is fine and need a skill to do so.

The second arrangement has used a shallow basin, and placed with the irises with two flowers and water lily with three flowers and some seven leaves. The iris used is not the universally popular **Iris Kaempferi,** but **I. laevigata.** The latter has better virtues than the former in arranging. The leaves are more sturdy, tidy in growth and constitution and twice wider in breadth. These have not the prominent middle vein seen in the former. Generally the flowers are not so fragile and have a peculiar grace. The arranger was an eminent figure and we had been expecting of him a new field of arranging. But alas he has passed away.

The arrangement with orchid and adiantum base is in a popular **morihana** style and there is no ambitious effort tried seen. It is a lovely one. To tell the truth, while I was the critic, I used to use my sharp tongue as some others did. I presume here it gives no good. Let the arrangements tell themselves through the readers' imagination and judgment.

Irises

It was told that the April-May number is to be a special on irises, orchids, roses. We have many native ones. But the so-called Japanese iris **(Iris Kaempferi)** in numerous garden varieties is only popularly known beyond the sea.

Roses

Our **Rosa multiflora** and **R. Wichuraiana** has or had been used in producing fine rambling garden roses, and now these are rather items for the members of Hips-and-Thorns. I guess some members are enjoying our **Rosa rugosa** that had derived some nice garden roses, not only as a garden plant, but its hips in their recipe. It had also enough thorns to remind a maxim. To the garden owners in warm climate such as yours, our **R. nipponensis** should be a hopeless one; even to garden lovers of Japan's peopled area, it is difficult to keep over a summer; still it is a tempting one to rock garden enthusiasts.

Cymbidiums

Our **Cymbidium virescens, C. niponicum, C. Kanran** and some other species are specialist's items to other than we Japanese. Our Calanthes are finer as garden flower. I fear there is whispering that it need not go so further on, and those may be called 'junks.' If you like a luscious, colorful flower or expected to be so in an orchid, you may say so and you will rave over it. I do not.

Roses

Life is no bed of roses but I have learned that a bed of roses will do much toward making life enjoyable.

by Ellsworth A. O'Bleness

This article is not intended to be a scientific thesis but rather a friendly visit; as my dear old German Grandmother used to say, "come in and set a spell and visit, it costs nothing."

First, plant selection is very important. You must buy the best roses you can find from your nurseryman; of the variety you desire and roses that grow well in your particular locality. I recommend visiting an established rose garden in your locality and observing the roses under growing conditions. All roses do not perform the same, they vary under different growing conditions.

There are endless combinations which can be worked out when landscaping with roses to give harmonizing color interest. What a pleasing effect could be obtained by having a circular bed of roses around the corner of a white house. For edging along walkways and paths, try a border of floribundas such as Ivory Fashion, The Fairy, Wildfire, Winifred Coulter and many others. The patio or backyard garden should be planned carefully, using the tall-growing grandiflora roses in back, hybrid teas next and the small low-growing floribundas in the front rows. This arrangement gives a pleasing effect and a good display of color. Climbing roses are of special value if one wishes to minimize and soften the unpleasant lines of a fence or an odd corner in the yard.

Many rose growers are often disappointed with the growth and production of their plants. They often do not realize that this is due to the lack of certain plant food elements in the soil. Roses, as with all living things need balanced food supplements containing nitrogen, phosphorus and potassium in combination with trace elements consisting of manganese, copper, zinc, iron and other minor elements. We feed our roses approximately two cups of granular food per bush per month during the growing season. It is also wise to alternate with a liquid food solution. When using the liquid solutions be sure to use as recommended on the container. Remember, roses are heavy feeders and that it takes consistent feeding to produce good roses.

Steer manure is low in nitrogen but is rich in bacteria and several of the minor trace elements that are beneficial in the production of good bushes and blooms. It is an excellent soil conditioner, breaking up heavy clay soils and giving body to light sandy soils and makes a good mulch for rose beds. As you have probably surmised, manure by itself is not enough to feed your plants—you must use a good rose food in addition.

Roses need a well drained soil for the best growth habits. Soil conditions which are conducive to the movement of plant nutrients into the root areas will greatly enhance the growth of the rose. Poorly drained soils have a low oxygen content. This could account for the insignificant growth of a rose planted in poorly drained soil. Drainage may be improved by digging the planting hole three feet deep; then put in six inches of coarse gravel, mix 25% fine sand with the remaining soil prior to planting your rose bush. A deeply rooted plant will benefit from the additional soil area from which it can obtain plant nutrients and moisture.

Spraying of roses for various pests and mildew is a very controversial subject; so I will be very general. A word of caution when using any liquid sprays—read the directions on the container and follow them as outlined. I suggest you start easy on the recommended solution mixture, perhaps one half of the amount called for, increasing gradually to the amount that will accomplish the task at hand. Always water the day prior to spraying the plants. It is desirable to spray in the early morning to prevent possible foliage damage. There are many sprays that serve well when mixed together to combat insects and mildew in one spraying operation. A complete coverage of the foliage, top and underside is important. Keep all sprays and poisons where children cannot get their hands on them.

We live in the Ocean Beach area about four blocks from the ocean; so mildew is our biggest problem. One of the ways to combat mildew is to buy mildew-resistant rose bushes. We have success with the following: Queen Elizabeth, Peace, Angel Wings, Montezuma, Tom Tom, El Capitan, Eiffel Tower, First Love, Royal Highness, Ben Hur, Columbus Queen and many others but these are some of the best in our area.

As soon as your rose bush is well established never dig or hoe around it within two feet of the main stem. Most of the feeder roots are within the top two inches of the soil surface and you can destroy them, thereby starving the rose. If weeds must be removed, water the ground thoroughly and then pull the weeds by hand. To get down on your prayer bones might reduce some of those excess waist lines and besides you get a new perspective of the rose bush from the ground up.

Watering the rose is most important. Water conducts the food solutions into the root area making it available for plant consumption. In a light sandy soil it may be necessary to water once a week or in hot weather, oftener, perhaps twice a week may be required. In heavy soil conditions, water will not be required quite this often. Roses do not like going to bed with wet feet. If water tends to stand around the plants too long I would suggest moving them to raised beds or improve the drainage where they are located. Roses should always be watered in the morning, if possible.

Mulching is a satisfactory method of saving water and keeping down weed growth; it helps to retain soil moisture thereby keeping the soil cool. There are many good mulching materials we have used with success; a few of which are: bark, steer manure, and redwood shavings. These are put on about four inches deep throughout the garden, early in the spring.

Startling as it may seem after all the foregoing comments, it is almost impossible to kill a rose bush. The human pest is its worst enemy.

Calendar of Care

Down-to-Earth Gardening

by Ed Ogden

Springtime truly is with us, revitalizing both garden and gardener—masses of color in flower beds, blossoms and fragrance from flowering trees and shrubs, new life and growth for tropicals. And a corresponding awakening of the gardeners' spirit.

In beach areas, gardeners are making their last plantings of cool-weather annuals such as Iceland poppies, stock, snapdragons and calendulas — and more adventuresome souls are having good luck with some of these throughout the year in cool beach towns. Those of the rest of us with foresight should now be interplanting mature spring flowers with first plantings of summer and fall varieties. Some suggestions for sunny beds include zinnias and bedding dahlias where there is good air circulation; cosmos, asters, dwarf phlox, marigolds, the year-round lobelia and petunias, African daisies, portulaca, cockscomb, ageratum and scabiosa. Shade plantings should include impatiens, bedding begonias, mimulus, coleus and red salvia (which does well also in full sun in most areas). If you've procrastinated, as most people do, you'll have to set out your perennials from quart or gallon cans for bloom this season—or plant little ones with next year in mind. These include Shasta daisies, coral bells, delphinium, columbine, marguerites, penstemon, campanula, gerberas and gaillardias. And there are always the masses of color provided by nierembergia, alyssum, nasturtiums, arctotis and coreopsis, Shirley poppies and Virginian stock, in bedding plants or from seed.

The gerberas mentioned above—commonly known as Transvaal Daisies, *Gerberia jamesonii*—are well worth singling out for recommendation to any gardeners not familiar with this rewarding performer. The consensus among gardeners and nurserymen is that the gerbera is possibly the most satisfactory of all flowers from our area: it's almost everblooming, practically free of pests and diseases, the cut blossoms are superb indoors (it has been called the aristocrat of all daisies), especially in the new duplex and double strains, and they are easily grown in our region following a few special tips. Plants may be purchased in bloom in cans or pots, but the most economical method is to buy root divisions of the type desired. The planting area may be either full or part sun near the coast or with filtered shade in hot inland regions; soil should be given extra attention in preparation with humus and bonemeal, to a depth of at least 12″; the roots should be spread as one plants a bare-root rose, and soil filled in to a point that leaves the woody crown exposed to avoid crown rot; and with good, uniform watering and feeding each clump will produce dozens of blossoms through the year. The colors range through white, shell pink, peach, pink, salmon, tangerine, orange, Oriental red, scarlet, rose and magenta.

While this is the season for most exhuberant growth of plants, we must sadly point out that this is also the season for rapid growth and reproduction of the myriad insects and pests that subsist on our flowers and plants. And Spring seems to encourage their appetites. Fungus diseases, too, become an increasing problem at this time. So we urge that pest and disease control measures be followed religiously at this time, among them the following:

Control of ants (who are themselves harmless to plants) using Chlordane or Dieldrin, so that the ants will not carry aphids, mealybugs and scale insects from plant to plant—dust or spray around the perimeter of your grounds, the foundation of your house, and criss-cross through and around planting beds, sidewalks and other areas; preventive applications of insecticides and fungicides to lawns to avoid damage by turf fungii and cutworms and lawn moth larvae; general clean-up spray with a mutli-purpose insecticide to get existing varmints, and leave a residue for succeeding generations; a saturation spray of plants and their areas where fungus complaints may arise, using Captan with its preventive (not curative) properties and low cost; conduct of a program of trapping, gassing or poisoning of gophers and ground squirrels, including encroachment on the vacant lot next door; examination for possible removal of plants infected with incurable bacterial and viral blights; fumigation of soils infested with nematode or soil mealybug; and related precautions. And then follow up through the season with spot treatments as the need is evinced.

Many of our readers may have been informed of a new systemic insecticide, Cygon, in the excellent columns on Rose gardening in earlier issues. Cygon has just about freed rosarians of their insect problems. The insecti-

cide is absorbed into the tissues of the rose bush and the sap itself becomes an insecticide solution, giving aphids and thrip and similar pests a fatal stomach-ache. Nurserymen have been experimenting with Cygon since it appeared on the market to determine its usefulness in the broad range of garden plants, and it is hoped the County Farm Adviser's offices will publish results this year for the home gardener to follow. Cygon follows no set pattern in its toxicity: rosarians and orchid growers find the material effective and harmless to their quite different plants; most viburnums and hollies are killed outright; some species of guava are killed or defoliated, others are unharmed; and rubber trees tolerate the material when growing in the ground, but not if in a tub or pot. Your nurseryman probably stocks Cygon, and it may be the answer to a difficult problem of pest eradication—ask him.

A relatively new pest becoming more and more widespread in Southern California is the foliar nematode. So far this form of nematode has been found primarily in the leaf and stem tissues of ferns and philodendrons and various indoor potted foliage plants of tropical origin. Typical symptoms are twisted, gnarled, dwarfed foliage, such as might be caused by overfeeding but without the burnt tissues normally evident in fertilizer burn. The only control is through a systemic material such as the Cygon mentioned above, as normal insecticides cannot penetrate down into plant tissues where foliar nematode lives. Incidentally, this nematode is a perfect illustration of the value of California's excellent plant quarantine and insect control system—Florida and Hawaii are unfortunate hosts to hundreds upon hundreds of pests and diseases we're not bothered with due to the rigid control exercised over importation of plants. So, if you should get caught trying to smuggle in a specimen of rare tropical returning from Hawaii, don't curse 'em, thank 'em.

As of this writing our areas have received less than half our "normal" rain fall, so it's important that dry-season watering practices are followed (adjusted to lower requirements and soil temperatures of the period), and especially that a program of leaching be established. Seasons that give us 12" to 15" of rain do a good job of leaching the soil of accumulations of alkaline salts—but half that amount just concentrates the salts in the upper foot of soil. Starting now, and probably 2 or 3 times more until next rainy season, make the effort to apply up to 6" of irrigation water over your garden areas, slow enough to penetrate deeply, and leach out the soil to a depth of several feet.

Owners of dichondra lawns can take heart in the multiplicity of products newly on the market designed to make dichondra maintenance easier and more foolproof. The latest product, available in a variety of "weed and feed" preparations under different brand names, is Enide. Enide is effective in the control and elimination of weed grasses—even Bermuda—in dichondra lawns, and gets a few of the broad-leaf weeds. Coupled with Scott's product, Bonus, which eradicates almost all of the broadleaf weeds, control of weeds in dichondra now is a simple task. Scott's is said to be bringing out a combination product both for grasses and broad-leaf weeds. And several products, separately or in combination with fertilizers, are doing an increasingly good job on fungus and insect control. Still no push-buttons.

A reminder that the San Diego County Fair is coming up sooner than we think. Make plans to enjoy it, either as participant or spectator.

ED OGDEN

PEOPLE WHO KNOW

Use

ARAGRO

10-5-5

Blended with Deodorized Organic Fish Concentrate

ALL PURPOSE LIQUID FERTILIZER

For LAWNS—DICONDRA SHRUBS—FLOWERS VEGETABLES—FRUITS

FULL BLOOM AHEAD

Use

ARAGRO

4-10-8

Blended with Deodorized Organic Fish Concentrate

Specially formulated for

LARGE FLOWERS
MORE FRUIT FLAVOR

WHEN NATURE NEEDS A HELPING HAND

—and She Usually Does

FEED YOUR
FUCHSIAS — AZALEAS
LAWNS — DICONDRA
AND AFRICAN VIOLETS

ARAGRO

FISH EMULSION

VISIT OUR NEW

SHORELINE NURSERY

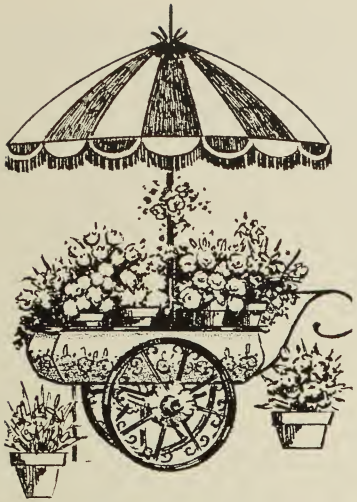
Ed Ogden, Mgr.

Browse among the most extensive and varied stock of plant materials in Southern California.

Relax in our FUCHSIA HOUSE —

Enjoy the hospitality of our COFFEE BAR —

955 First St. (Hwy. 101) Encinitas **753-2933 and 753-1196**



EXQUISITE
BLOOMING PLANTS AT
Bennett's
GARDEN CENTER
454-4241
7555 EADS AVENUE • LA JOLLA

7580
Hillside Drive

Overlooking La Jolla Shores, Hillside Nursery is just up the hill from Torrey Pines Road, or down the hill from Mt. Soledad. Whichever approach you take, you'll find a WONDERLAND OF PLANTS—rare begonias, philodendrons, tropicals, fine house plants—a wide variety of nursery stock, always at a peak of perfection.

Corey Hogewoning, Prop.

Orchids

by Byron Geer

President, San Diego County Orchid Society

Comes April and the nineteenth annual Orchid Show in Balboa Park. Every grower that I know is anxiously hunting spikes and figuring the time needed to get his plants into best condition for exhibition. Cymbidiums in general are later than usual this year, and this portends an outstanding array of material for display. We are past the prime season for Cypripediums, but there will still be enough to catch the eye, and April should be a good time to pick up the Spring surge of Cattleyas. All in all, the Orchid Society hopes to present the biggest and best show ever, and if you remember shows from the previous years you will realize that this is a large order. Everyone who grows Orchids is encouraged to exhibit, and if you have but a single plant of which you are proud, bring it along and let everyone else enjoy it for a few days.

It's already too late to do anything about culture for plants that you may wish to show, but you'll want to display them at their best advantage and a tip may be in order. Most important of all is a good clean-up operation. Trim off dry sheaths and dead foliage. They don't add anything to the plant, and they do take the eye away from the bloom. Scrape any salt deposit from the outside of the pot and sponge off the moss and algae with warm water. Using a soft cloth and warm water, wipe down the leaves and bulbs, both top and underside. The plant will look much better even to you, and these are all things that are taken into account in competitive judging. Nothing causes the judges and the general public to pass by a plant quicker than one which looks as if the beautiful bloom must be an accident since the plant obviously has had no care. Stake the flowers so that they look up at you. Shaping with soft cotton is not permitted, but there is no objection whatever to supporting the pseudo-bulbs and blossom so that they present a pleasing appearance. And for appearance sake, it might be well to add a light top dressing of new potting mix to the surface of the pot.

Show or no show, the active growing season for all genera is upon us and we should get our plants into maximum growing condition as soon as possible. The Cattleyas should be pushing out new growths and roots, and this is the best time to divide and repot if necessary. They respond quite well to new potting mix if you catch them just as the new roots are appearing. If dividing, be careful not to overdo it. Three healthy, leaved bulbs are a must to each division, and four are preferable. If divided too small, the plant may recover but it will take several years and the chances are that it will give up and not even try to grow. Better two good blooming divisions than four that take up space for three to four years with no flower production. No attempt will be made here to advise proper potting techniques. If you don't know how, take your plant to a reputable Orchid nursery or consult a friend who does

Send Your Greetings by
THE BAMBOO TREE
Florists
5029 Newport Ave. 222-0589
Ocean Beach
Flowers • Gifts • Oriental Imports
Accessories for
Ikebana and Bonsai

Nineteenth Annual
ORCHID SHOW
"Artistry in Orchids"
SAN DIEGO ORCHID SOCIETY, Inc.
CONFERENCE HALL, BALBOA PARK
Preview — Friday, April 9, 7 to 10 p.m. Open to the public
Saturday, April 10, 10 a.m. to 9 p.m.
Sunday, April 11, 10 a.m. to 5:30 p.m.
Admission $1.00 No charge for children under 12, with adults

a good job of growing. Not that there are any secrets in the repotting of Orchids, but a certain amount of 'know how' is necessary. This is something that you can easily learn to do for yourself, but get expert instruction before you tackle it. Otherwise, you stand a good chance of doing permanent and irrevocable damage to your plant. The same advice holds true for potting mixtures. Any number of persons have brought Cattleyas in to me with the statement that the plant 'doesn't grow and doesn't bloom. It just sits there and sulks.' One look at the material in which it is potted frequently explains why. Cattleyas simply will not be happy in soil, leaf mold, peat or any likely combination of the three. They want a loose, porous medium, one that retains moisture but that drains excess water almost immediately. As in the case of Cymbidiums, there are as many potting mixes as there are potters, but the most successful mix for me has been one-third each of medium grade fir bark, hapuu fiber and Miracle redwood bark. This mixture may not be the thing for you, but it should be an excellent point of departure for you to develop one suited to your own growing conditions. At the risk of being repetitious, it is worth emphasizing here that **no one's growing methods and conditions are like yours.** Even your next door neighbor has different humidity, light and exposure. Don't slavishly follow the rules laid down by someone else if your plants are not responding satisfactorily. It's interesting to note in connection with horticulture in general that those people who seem to have green thumbs up to the elbows always seem to be plenteously endowed with gray matter, too.

The Cypripediums (or Paphiopedilums, if you are a purist) are due for a little attention after blooming. The great show usually takes place December to March, but the late ones will still be tagging along. Resume feeding if you have not already done so. High nitrogen for growth, of course, but don't forget that they need all the trace elements too. This means an organic food such as fish emulsion with every second feeding. We get so wrapped up in the virtues of Nitrogen, Phosphorous and Potash that we are apt to forget that they are *not* the be-all and end-all of a good feeding program. Contradictory as it may sound, plants can get hungry even though they can be considered well fed. Normally the Orchids are grown in completely unnatural potting mixes, and the only food they get is that which is given them. To make a simple analogy, man's basic foods are proteins, fats and carbohydrates, but man would be extinct in short order if he tried to live on a pure chemically synthesized diet of these three. Apart from food, remember the importance of water and light to the Cyps. Never under any circumstances let them dry out completely, since they have no built-in mechanism for the storage or retention of water. And keep a wary eye on the northbound sun. About 30-40% light should be ample.

As for the Cymbidiums, we are at the height of the blooming season and you know by now whether your care during May through September of last year was to their liking. What you did in those summer months probably had more to do with your bloom spikes or lack of them than you realize. If they were hungry or thirsty for any prolonged length of time they didn't have enough reserve energy to put out flowers. Plants that are pot bound or crowded should be repotted at once. You are already late, since the preferred time for repotting is January through March. Cymbidiums that are repotted early have a chance to develop good, hard heavy growths and ordinarily will still bloom the following year. Your chances of bloom diminish in direct proportion to the procrastination in repotting. And don't let anyone tell you that Cymbidiums like to be pot bound to the point of bursting the pots. They must have room for growths to develop and ripen and must have room for new root structure on the new growths. It's axiomatic that good growths and good roots mean good bloom spikes. Again, if you don't know how to divide and repot or what mix to use, find out. Instruction classes are held in many of the larger general nurseries, and any Orchid range will be glad to advise and illustrate. There's no magic involved here, either, but there is a right way and a wrong way. If you are taking the trouble to repot and care for Cymbidiums, it follows that you should be willing to take the trouble to do it properly as it should be done. For Cymbidiums in spike or bloom, the only cultural advice necessary is to continue a regular feeding and watering program, and to train and stake up the spikes so that they open the flowers upward without crowding. Maintain control of possible pests, especially snails and slugs since they can ruin overnight the flower you have been waiting months to see. Caution here —insecticides can damage flowers if sprayed or dusted directly on them. Cover the bulbs, leaves and compost thoroughly, but avoid contact with the flowers.

And finally, now that the plants are all attended to, some attention may be directed to the greenhouse. Warm weather will soon be here, anticipate it and get the Spring cleaning done. Glass needs washing down to clear it of algae and prepare it for summer shading; benches should be cleared and scrubbed down to clean wood; pots have an accumulation of salt deposit and moss and ought to be brushed or steel wooled. A general housecleaning is in order, and will certainly pay dividends in appearance. Remember the controls and equipment require a semi-annual check up. We have a bad habit of taking automation for granted, assuming that it is going to function forever with no attention from us, and sometimes learn to our sorrow that this is not the case.

The garden chores taken to task, take time off and enjoy your Orchids. This is why you grow them, and the results of time spent with them should be a great satisfaction to you.

See you at the Orchid Show on April 9th, 10th and 11th.

FRANK FORDYCE ORCHIDS
We specialize in **ORCHID PLANTS** for the hobbiest growers.
Blooming Size Plants $3.95 and up
Orchid Supplies
Phone 729-1284
Visitors Welcome
Open Tues.-Sat. 8-5
Sun. 1-5
2500 Fire Mountain Drive, Carlsbad

Walter Andersen Nursery
LARGEST SELECTION LANDSCAPE MATERIALS
Nursery Stock and Garden Supplies for Beautiful Gardens
We Specialize in Indoor Plants
3860 Rosecrans San Diego 10
Phone 296-6251

LA MESA NURSERY
"Everything For The Garden"
Now!
FINE STOCK NO. 1 BARE-ROOT ROSES
CONSULT HARVEY SHORT
ON CAMELLIAS - SAT. AND SUN. P.M.
Wilkensen's Stainless Steel Blades and Tools
Bankamerica Card Delivery
S & H Stamps
8480 La Mesa Blvd. — 466-5703

Specializing in FINE COSMETICS
ACE DRUG CO.
REG U.S. PAT. OFF
820 West Washington St., 295-2131
Prescription Pharmacists since 1925

SAN DIEGO'S LARGEST NURSERY FACILITY
. . . with complete, personalized attention to your every garden need.
Presidio Nursery and Florist
LINDA VISTA RD. at MORENA BLVD.
PHONE 297-4216

CULLIGAN
Soft Water
KEN WALKER
Serving La Jolla - Pacific Beach
COMMERCIAL & RESIDENTIAL
SALES • SERVICE
AUTOMATIC SOFTENERS
FILTERS
488-8373
970 TURQUOISE • PACIFIC BEACH

Fuchsias

by Morrison W. Doty
San Diego Fuchsia Society

Our Calendar of Care becomes busy indeed with the advent of April. Although the pruning, essential for new flowering growth, will have been done as detailed in our last issue, and already most of the propagation started from the resultant cuttings, much is yet to be done. Some leaf mold and weed-free steer manure may be worked into the soil around the bush, tree, or espaliered plants, even earlier than this, and about two weeks later, perhaps, one feeding of commercial fertilizer. As really hot days come on, a most important protection and insurance against forgotten watering, is a good mulch such as peat, shavings, sawdust; something to provide cool dampness from the hot California sun. Sometimes even rocks are used as a cool garden mulch in this climate.

With the great present popularity of Container gardening, we find special attention needed at this time of year, perhaps more than for plants in the ground. Basket plants will need new soil, replacing that which was washed away, and will need feeding and Fuchsias that have been in containers should be repotted, after trimming the roots some, if they are rootbound. All baskets or other containers should be repaired or renewed, and a metal or roll-roofing liner inside each one may save a plant if you forget to water enough in dry weather.

After pruning, it is most important to pinch out the tips of new growth to shape the fuchsia plant into its proper type. The pinched tips will divide again and again to make more abundant bloom, and the resultant delay in blooming allows time for the plant to develop strong sturdy growth to resist pests and to flower profusely. When the proper shape and good growth have been attained, stop pinching to allow time for the blossoms to form, for this is a rather slow process. A mild insecticide spray and sharp water spraying should be begun biweekly if pests appear early.

Regular feedings, two to four weeks apart, of a good fish-emulsion base plant food may well be begun within a month after the first Spring fertilizing, and the watering increased as hotter days come on. Too much moisture, especially for cuttings and young plants has been called a cause of damp-off and poor propagation in recent Spring weather. One of the most successful wholesale Fuchsia growers in this area, Mr. Richard, of Henderson and Richard, claims about 98% success in propagation this year partly by better moisture control, in producing around 100,000 plants. Incidentally, it is to be hoped that he may help us with some things learned in growing Fuchsias in a future issue. But plants can be bought only from retailers.

When choosing new Fuchsia varieties, or any plants for your garden, look for varieties best adapted to your own garden climate (which may vary greatly from the next canyon or knoll) and try to buy only types, kinds and colors according to a garden plan suitable to your place. For instance, for a cold location, hardies such as the old Rose of Castille (often called Minnesota); Brilliant, Lucky Strike, and others with purple in their pedigree. Hardies to withstand heat, drouth, even direct sun sometimes, include: Glendale, Rubeo, California, Sleighbells, and some of the cold hardies such as Brilliant and Rose of Castille.

For a mound of color you may choose tall varieties for background like: Firefly, Aviator, Gypsy Queen, Chief, etc., with the lower-growing Patty Evans, Jules Daloges, Blue Gown or Countess of Aberdeen in front. The foreground might include Lord Byron, Swingtime, Enchanted, Georgiana or many others, all beautiful basket varieties, well-known and easily obtainable. Besides the old standbys, the many new varieties of Fuchsias resulting from their present vogue of popularity will delight old and new gardeners alike. Shop for them, and exchange cuttings with garden friends.

MISSION HILLS NURSERY
Southern Indica Azaleas — Fine Assortment of Colors
Since 1924 We Give S&H Green Stamps Phone 295-2808
1525 Fort Stockton Drive San Diego 3

Irises

by James E. Watkins

President, San Diego - Imperial Counties Iris Society

Before we get into the busy goings on of the iris fancier during this season, let me first correct or amplify an unfortunate recommendation in the last issue. Wherever I spoke of "manure" being added to the soil, care should be exercised that it is cow or dairy manure. Sunset magazine ran a lengthy article a few months ago explaining why, based on exhaustive tests made on steer manure bought from many sources along the West Coast. It was purchased from nurseries, service stations, discount houses, anywhere where it was sold, and at every kind of price. It was found there was little correlation between price or source as to quality, and all samples had varying amounts of salts. Here in Southern California soil salinity is a serious problem, and it is, of course, folly to add anything that will worsen the situation. The consensus of the tests was that the best obtainable steer manure is of questionable value in any garden, the worst downright dangerous, and that it is far better to add nitrogen-treated sawdust or other humus. This, of course, would apply to any kind of garden, not just to the raising of irises.

Now is the season which the iris grower lives for, the peak of bloom, with dwarfs, intermediates, and arilbreds blooming heavily in April, closely followed by the tall bearded, the table iris, and the border iris throughout May. But it is also the time when we wish we could split up into a number of bodies so that we could see everything in everyone's garden, as well as in our own garden; make tours into neighboring communities, enter all the flower shows; decide what additions to make during the year, and (if we are hybridizers) get up early in the morning and gather that precious pollen before the thrips steal it.

Fortunately some of these activities can be consolidated. Certainly there is no better way to pick out what we want to buy than to see what looks good in gardens in our own area. Remember that when those startling color pictures appear in the expensively produced iris catalogs the best possible bloom is photographed, exactly as is done in, let's say, a new rose catalog. Furthermore, we don't know whether that iris is going to like our Southern California climate. One commercial grower tells me that he received an order for plants including Truly Yours and Mary Randall, both high on the popularity polls and winners of the Dykes Medal, from a coastal gardener. Along with the order was a plea for advice as to why the gardener did not have much luck with raising iris. Well, I never have seen Truly Yours except in pictures, because it just doesn't want to bloom in this area, and although Mary Randall will bloom, it certainly won't come up to a prize-winning standard. The same dealer tells also of the easterner visiting his gardens and looking at a long row of yellow and white blooms, remarking she had never seen Truly Yours blooming so beautifully. What she was looking at was Montecito, admirably adapted to Southern California.

However, the irises you see at local flower shows and in gardens in our area are the ones you will likely succeed with also, so visit all you can and take your notebook along. In San Diego the big show will be on May 1 and 2 in the Conference Building in Balboa Park, where you will see hundreds of different varieties and types, along with a myriad of ideas on how to use irises as cut flowers. On the same week-end the Southern California Iris Society will have its show in the Los Angeles County Arboretum in Arcadia. There will, of course, be many general flower shows in the area, and most of these will have at least some irises.

A splendid opportunity to visit some notable private and commercial gardens will be at the Region 15, American Iris Society annual meeting and garden tour in Riverside on April 24 and 25. Registration should be made prior to April 13 and is open to non-members. Details can be obtained by writing Mrs. Clarence Joris, 1116 "H" Street, San Bernardino, California 92410. The gardens to be toured will include old favorites and the newest novelties in irises. The registration fee includes breakfast, lunch and a banquet on April 24, free admission to the Riverside Flower Show, and bus transportation to the various gardens in Riverside, San Bernardino, Perris, Loma Linda, and Yucaipa both days.

Visit all the gardens you can, and be sure to follow common garden courtesy, avoiding billowing skirts, wildly swinging handbags, trampling on plants, and volunteer aid in housekeeping. The seed pod you break off may be the culminating effort of a hybridizer and throw his work back a year!

Of course there are more things to be done than to admire and to daydream about new additions to your garden. Cut off all bloom stalks close

729-2030

Garden Cove NURSERY FLORIST

Ralph & Hope Wrisley

2715 Carlsbad Blvd.
Carlsbad, California

PILLEY'S GARDENS

Visitors Welcome

IRIS and DAYLILIES

MANY SPECIALS

Free Catalog — P.O. Box 7A

Phone 745-2580 | Woods Valley Rd. Valley Center, Calif.

Roses

by Carl Truby

President, San Diego Rose Society

While rose growers in most of the nation are starting to prune their bushes and deciding on which new bare-root bushes to buy, the San Diego area grower is picking his best blooms. Local rose people prune their bushes between mid-December and mid-January and usually, depending on the weather, the rose bush will be in full bloom 80 to 100 days from date pruned. These first blooms are the best of the year for several reasons. The bush has had several weeks rest, the insect and fungus problems haven't yet started, and the weather is best for bloom and foliage color.

April Good Rose Month

The 38th annual Spring Rose Show, "Melody of Roses," will be held in the Conference and Recital Buildings on Saturday and Sunday, April 17th and 18th, 1965. The members of the San Diego Rose Society will sponsor the show. However, the public is invited to enter blooms and arrangements in all but a few of the classes as noted on the show schedule.

A brief rundown on show rules for specimen blooms are: All classes open to amateurs who grow their own roses in their own gardens—containers will be furnished except in the arrangements sections; entries will be accepted between 7:00 and 10:30 a.m. on Saturday, April 17th; American Rose Society Rules for exhibiting and judging will be followed. No entry fee will be charged.

San Diego the Largest Show

The San Diego Rose Show is the largest in number of blooms of any in the nation. Combining this fact with the beauty of our local blooms, the beauty of Balboa Park, and the cost of admission of only 50 cents and you have the Show bargain of the year. Added to this will be several fine displays from commercial organizations who will be glad to answer questions and help anyone who is having problems with his plants.

New Trophy Offered

Trophies valued at several hundred dollars will be offered this year as well as eight beautiful perpetual trophies. Added to the list of perpetual trophies will be the new 'Adeline Lawton' perpetual trophy offered in the arrangement section for arrangement best depicting the theme of the show. This year's theme, "Melody of Roses," opens a vast span of ideas for beautiful arrangements as well as creating a lovely mood for our specimen blooms.

Other trophies to be offered this year are:

- Queen of the show
- Princess of the show
- Sweepstakes
- Several Section trophies

Perpetual trophies

- Forrest L. Hieatt
- E. O. Adams
- San Diego Rose Society
- Past Presidents
- J. J. Kenneally
- Adeline Lawton

It's fun to grow roses that *win* trophies, beautiful roses and beautiful *trophies* go extremely well together.

TABLE TOPIC TEA

Mrs. Edward Penprase, representing the Floral Association, will enter an original luncheon table setting, at the fourth annual Table Topic tea, sponsored by the Aurora Unit to the Auxiliary to the Salvation Army Booth Memorial Home and Hospital.

The tea will be held in the House of Hospitality Auditorium on May 6th, from one to four p.m. to benefit the Home's library fund. More than thirty women's clubs will create topics in table decoration to be judged as: Most Beautiful; Most Original; Most Functional; and Most Popular.

ARRANGEMENT MEMBERS Receive SOGETSU Certificates

Mrs. Rose Canter, Accrediting Teacher of this winter's class in Ikebana flower arranging, announces that two members, who have completed the requirement for one credit in the Sogetsu School of Flower Arranging. will receive their qualifying certificates signed by Mr. Sofu Teshigahara, founder of the Sogetsu School. Mrs. Loretta Crocker and Mrs. Martha Rosenberg are to be congratulated not only for their achievement, but also for their perseverence.

WE GET THE DANDIEST FAN LETTERS . . .

Like the one from Mrs. Fisher of mile high Denver, Colo.

This past Spring Mrs. F. heard about COUNTRY SQUIRE ROSE FOOD, and was determined to try it. We shipped it and hoped it would work as well there as it does for San Diego Gardeners.

Mrs. Fisher wrote to us as the first snows started to hit the Rockies, and said, ". . . You would be surprised to hear of all the prizes I have won in the Rose Shows. . . . I was "King of The Show" in the Denver, the Arapahoe County and the Boulder County Rose Shows. In the Boulder Show alone, I had **Best Grandiflora, Best Three Hybrid Teas, Best group of Three Peace, and I won 9 blue ribbons, 1 red, 5 yellow and 1 white all out of 21 entries. . . .**"

Congratulations Mrs. Fisher, and thanks for helping us prove that COUNTRY SQUIRE ROSE FOOD grows prize winning roses.

Use COUNTRY SQUIRE FERTILIZERS

BEST FOR YOUR WHOLE BLOOMIN' GARDEN!

Made in San Diego

ART ENTERPRISES
by Pharis

ANNOUNCES:
concentrated groups of
SUMMER CLASSES

Return engagement of:

PROFESSOR OBATA
celebrated instructor
of JAPANESE PAINTING

MADAME OBATA
highly regarded exponent
of ORIENTAL
FLOWER ARRANGEMENT

LURA SMITH
Lecturer and demonstrator
at the famous Oakland
Christmas Idea Show
Well known teacher in the
new field of
Glass and Plastic
RESIN ARTS

Make reservations now
Call 295-5837

Send for brochure
1578 West Lewis (Mission Hills) S.D. 3

CAROLYN
BEAUTY SHOP
CALL 234-5344
121 W. Juniper—Just off First Ave. Bus
Convenient Parking

MINIATURE ROSES

by Carl Truby

The popularity of miniature roses has gained considerably during the past few years and nearly every rose hobbyist has at least one of these little trojans. The miniature rose seems to require less care than its bigger relatives yet blooms continuously with rewarding colorful flowers which last several days as cut blooms.

In recent years the growers of miniatures have created many new colors and types. The buyer may easily obtain a miniature rose in the exact color he wishes, and many colors are presently available in climbing and tree varieties. Listed below are varieties that do well in the San Diego area and require a minimum amount of care. The average cost of miniature roses is $1.75 and this includes the newest introductions; climbing and tree varieties are more expensive.

The most popular bush varieties are:

June Time	Pink
Eleanor	Coral Pink
Little Buckaroo	Velvet Red
Yellow Doll	Yellow
Easter Morning	White

The most popular tree varieties are:

Bobolink	Red
Bit O' Sunshine	Yellow
Pink Cameo	Pink
Cinderella	White

Most popular climbing varieties are:

Climbing Jackie	Light Yellow
Pink Cameo	Pink
Scarlet Ribbon	Red

Silver Tips

Miniatures To Have Own Section In Show

For the first time miniature roses will have their own section in the San Diego Rose Show. Section "N" will have 7 new classes as follows:

1 specimen bloom
1 Spray (3 blooms or buds)
1 Spray (More than 3 blooms or buds)
3 blooms different varieties
Collection of separate miniature blooms on tray
Collection of miniature roses in containers
3 different miniature roses in containers.

Two New Miniature Trophies Offered

In keeping with the trend toward variety at the larger Rose Shows across the nation, the San Diego Rose Society will add two new trophies this year in the Miniature department. One will be offered for "Best in Section "N" (classes 1 through 4) and Runner-up in Section "N" (classes 1 through 4).

Things To Come

Perhaps next year, or by 1967 for sure, the San Diego Rose Society will lead the way by expanding their section for Miniature Roses ever further to include, a class for climbing varieties only, a class for multiple-stems of one variety or mixed varieties, and color classes to include the newest blends and multicolors.

Be sure to spend some time sharing the beauty to be found in Section "N" at the Spring Rose Show. Better still, enter your miniature blooms and allow everyone to share their beauty.

G. S. JOHNSON ROSE NURSERY

8549 MAGNOLIA AVENUE, SANTEE, CALIFORNIA

Corner Magnolia & Prospect in Santee — On Highway 67
19 years in same location

Phone: 448-6972

ROSE SPECIALISTS

Bare Root Roses Available through April.

CLOSED WEDNESDAYS

CURTIS COLEMAN CO. REALTORS
SINCE 1913

SALES LEASES REAL ESTATE LOANS PROPERTY MANAGEMENT

Suite 2100, United States National Bank Bldg.
Centre City, San Diego 1, Calif. 233-6557

Dahlias

by Larry Sisk

San Diego County Dahlia Society

Dahlias at their best are so spectacular and breathtaking that many would-be growers think there is something mysterious or difficult about their culture.

Not so. They are about as easy to grow as glads, mums, roses, or carnations. It's easier to grow crabgrass and dandelions, but who wants them?

Another wrong impression is that you have to have large beds for dahlias. True, some hobby growers have them in large beds, but more often dahlias are planted and cherished in average-sized yards or in small areas alongside the house.

Dahlia blooms can be enjoyed from a single plant, or from a dozen, or from a hundred. You can raise good ones in whatever space you have, and chances are that the gardener with the fewest plants will raise better individual blooms than the one with the greatest. The one with the fewest will give them more undivided care.

Allow a space two to three feet square for each plant of the large or medium dahlia varieties. Pompons and other smaller varieties require only about 18 inches square.

Most hobby growers who like them for exhibition plant their dahlias in rows 24 to 30 inches apart, but for one who is trying them for the first time or so, the plants can be placed wherever there is room, in singles, in rows, or in mass plantings. When planted in rows, spacing is 18 inches to 36 inches apart, depending on the size of the variety.

Large flowers grow on large plants that require more room. And, to get large flowers, large varieties must be planted. You can't get the large blooms from roots of the small varieties, regardless of how much you fertilize or disbud.

Right now is the time to plant dahlias. They do very well when planted from now until mid-June or early July. They will continue to bloom from 90 to 100 days after planting until mid-November, or in the cold areas, until frost, if kept watered, fed and free of insects.

The soil should be turned to a depth of 12 to 18 inches. A spade of steer fertilizer can be mixed into the soil for each plant, and when placing the root a handful of bonemeal stirred into the soil will help make the flowers better.

Mark the location for each plant with a 1-by-1 stake (or, even a broom-handle) four feet long or so. Dig a hole six to eight inches deep at the base of the stake.

Place the dahlia root on its side two or three inches from the stake. Be sure the root has an eye or shoot on the crown, planting it with the eye up, near the stake. Cover the root and gently firm the soil. Water and keep the soil damp, but not wet, until the little plant breaks through the soil. After that, water when the top of the soil is dry, normally about once a week.

When the plant has three sets of leaves, nip out the tip about the same as with carnations, mums, and other flowers. That makes the plant bush out. As the plant grows, use the stake for support, tying loosely as necessary.

In addition to the watering, a regular spraying schedule will prevent insects from bothering, and feeding about once every three or four weeks with a low-nitrogen fertilizer will keep the plant blooming.

Disbud and disbranch to obtain the larger flowers. Usually there are three buds on each stem. From plants of all except the small varieties two of each trio of buds should be removed, leaving the center one to grow. The more buds and flowers left on each plant, the smaller the dahlias will be.

To get the maximum size out of the largest varieties, each plant should be disbranched so that no more than three or four blooms are growing on the plant at once.

Dahlia roots for all desired sizes may be obtained from nurseries, from seed catalogs, from dahlia specialists, or from other dahlia growers. For best results plant only named varieties. Some nurseries and the specialists also can supply plants.

Members of the dahlia society welcome beginning growers and prospective members to society meetings in the Floral Building, Balboa Park, on the fourth Tuesday night of each month, and those with larger gardens are pleased to share roots with new members. At the April 27 society meeting, there will be one of the annual root swapping events at which visitors are welcome.

BLUE RIBBON DAHLIAS

DAHLIA PLANTING TIME IS HERE

For the best in roots, plants, and seeds, send for COMSTOCK'S FREE 1965 CATALOG, listing 215 VARIETIES of highest quality

PLUS planting instructions and cultural hints.

Excellent selection of cut flower varieties.

Roots, plants and seeds for sale through May 30th excepting Mondays and Tuesdays.

COMSTOCK DAHLIA GARDENS

145 Dahlia Drive **Solana Beach, Calif. 92075**

P. O. Box 308

EXOTICA NURSERY
One block west of the stop light in
SOLANA BEACH
Bromeliads and Orchids
House Plants a Specialty
ON THE PLAZA — 755-1949 — OPEN DAILY

Leo Volz
POINT LOMA PHARMACY
1105 Rosecrans St.
223-7171

Your Prescription Specialists
Since 1935

Three free deliveries daily:
except Sunday & Holidays
11:30, 2:30 and 4:30
S & H Green Stamps
featuring
ELIZABETH ARDEN
FABERGE
LANVIN
and Other
Leading Brands
of Fine Cosmetics

BLUE PACIFIC
NURSERY AND LANDSCAPE CO. Inc.
"Serving All San Diego County"
LANDSCAPE CONTRACTORS
FREE ESTIMATES
4876 Santa Monica — Ocean Beach
Tel. 222-1151

Camellias

by William T. De France
San Diego Camellia Society

The camellia blooming season is getting near the end with the exception of some of the late blooming varieties. I am sure we all enjoyed the lovely blooms this season and are looking forward to bigger and better blooms the next season. Camellias, like many other evergreen shrubs, must have a certain amount of care in order to grow healthy and produce an abundance of blooms the following season. This is the time of year to start giving our plants tender loving care in the areas of pruning, spraying to protect against insects, feeding, mulching and watering.

PRUNING:

Camellias can be pruned any time of the year without harmful effects on the shrub. However, the ideal time to prune is after the plants are through blooming and just before the first cycle of growth starts in the early spring. This would be the months of March and April in this area.

Camellias will respond very favorably to heavy pruning, so don't be afraid to cut them back and thin out the inner branches if they need it. There are two basic reasons for pruning: (1) To shape the shrub to your liking and to improve its appearance for the particular area where it is located. (2) To cut out old and dead wood and thin out inner crossed branches, so air and sunlight can penetrate through the plant.

You should have an idea of the preferred shape of the plant you desire before starting and prune accordingly. For instance, if you have a tall spindly shrub and you want to make it more compact and bushy, this can be accomplished to a certain extent by cutting the top branches back to within one-fourth inch of the previous growth cycle. You can tell growth cycles by the color of the wood. The last cycle of growth will be a lighter brown and the bark will have a smoother appearance.

The older your camellias get the more pruning will be required to keep them healthy and encourage new, vigorous growth. The amount of thinning will depend upon the variety and the length of time since it was last pruned. Some varieties are more compact and bushy growers than others and will require more pruning. Cut out all dead wood, old spindly wood, crossed branches and branches that are growing toward the center of the shrub. The branches should be thinned out a sufficient amount so you can see through the plant. This will permit sunlight and air to penetrate through the plant which will assist in producing new growth that will improve the appearance and produce more blooms the following season.

SPRAYING:

There are not too many insects that like camellia foliage as part of their diet. Red spider, thrips, scale, aphids and looper worms are the most common pests, the latter two are the worst of the group. There are a number of good all purpose insecticides on the market; isotox and malathion have proven to be effective and are compatible with camellias. You should consult a nurseryman in your area for his recommended action for an insecticide for a particular insect. The spraying should be started in March and continued at 30 day intervals until flower buds start to open.

FEEDING:

Camellias should be fed as soon as they are through blooming or the new growth starts. March or April is a good time to start in this area and continue at four to six week intervals through October. There are a num-

COUNTRY SQUIRE **CAMELLIA FOOD**
Just released after two full growing years of
successful tests at De France's Nursery, Cardiff, California
6-10-8 formula, fortified with **chelated Iron and Zinc.**
Rich fish concentrate. Contains **NO CHLORIDE SALTS**
A real PLUS-VALUE camellia lovers will find invaluable.
Use COUNTRY SQUIRE FERTILIZER
BEST FOR YOUR WHOLE BLOOMIN' GARDEN
At your NURSERYMAN'S **NOW**

ber of good fertilizers on the market which have been especially developed for camellias. There is a new fish base 6-10-8 liquid camellia food with added chelated iron and other tracer elements which was developed for the San Diego Camellia Society by a local fertilizing manufacturer. This camellia food has been field tested for the past two years on thousands of camellias with excellent results. The local nurseries will have this camellia food in stock, if not they can get it for you on request. It is much better to feed lightly and more often than it is to feed heavily at long intervals. You should never feed in excess of what the manufacturer calls for on the label.

MULCHING:

Camellias like to be mulched with a good, coarse material such as leaf mold, fir bark, peat moss, pine needles and a number of specially prepared mixes stocked at all nurseries by the manufacturer's trade name.

The mulch should be applied around the base of the plant one or two inches thick. As the mulch material breaks down, it should be raked back and new material added. Be careful not to disturb the camellia surface roots when removing the decomposed mulch. Never build up a heavy layer or pack it down, as this would have the same effect as planting the camellia too deep. Camellias planted in sunny or windy locations will benefit more from mulching since the mulch will prevent excessive drying of the soil and will keep the root system cool.

WATERING:

Camellias like a moist soil, but not a water-saturated soil, over a long period of time. The plants should not be allowed to dry out completely through the root zone. However, very often the surface of the soil will appear to be dry and by scratching the surface you may find it plenty moist just below the surface; if so, your plant does not need watering.

Camellias like a high humidity and spraying the ground and foliage will be beneficial to the plant on dry, hot days. The foliage should be sprayed in the early morning or late afternoon to avoid burning the leaves due to sun rays on the wet foliage. The overhead spraying should only be enough to wet the foliage and not permit excessive water to drip to the base of the plant which could keep the soil too wet. When your plant needs watering, water deeply, which will help to keep the salts flushed through below the root zone.

Begonias

by Margaret M. Lee

Now is the time to get busy in the garden. After resting for several months the plants are awakening for their annual spring miracle.

The danger of frost or a freeze should be well past so the new growth on the plants is to be encouraged. With this in mind, a light feeding of a well-balanced fertilizer may be applied. If, however, you have been feeding all year, a high nitrogen content food would be excellent to use.

Examine your pots for exposed roots and if this condition exists cover the roots with your regular potting mix. Covering the roots will encourage new growth and will suffice until the plants are growing more vigorously and will need to be shifted into larger pots or to be repotted.

With the advent of the tender new growth, the advent of the insects occurs also. The pests have been resting and are ready to eat at this time, too. Start your control program of malathion for aphids, mealy-bug, scale, etc.; chlordane for ants, and your favorite product for snails and slugs. Mildew may be in evidence, depending upon weather conditions, so it would be wise to institute control of this, also.

Fibrous type begonias may be trimmed lightly for shape and to encourage the new growth but be careful not to cut back more than one third of a growing plant at any one time. Dispose of all dead wood, leaves, and dried bloom. Start new plants with the good branches trimmed from the parent plants. Clean sharp sand is a good rooting medium.

Rhizomatous begonias should be blooming and this often occurs with very little foliage so do not repot this type until there is a good percentage of leaves and the blossoming is finished. Most of the rhizomatous types grow best in shallow wide containers. Moss-lined wire baskets are very good.

There is no magic formula for growing beautiful plants, nor is there a magic potting mix. Each potting mix has to be tempered to the particular location of the grower, the basis of which is a light, porous mix which simulates the soil in which the begonias grow naturally in their native habitat.

Garnet Nursery
Open Daily — Free Delivery
30 Day Accounts on Approved Credit
488-3281
1530 Garnet Pacific Beach

Ask your favorite nurseryman for
• **LOAMITE**
The Organic SOIL AMENDMENT that
outperforms and outlasts all others
and **MILORGANITE** •
The LONG-LASTING and SAFE FERTILIZER

Complete Selection of
CACTI, SUCCULENTS & EPIPHYLLUMS
LESSAR CACTUS NURSERY
396 N. Highway 101, Encinitas - Phone 753-5192 - 1 Mile North of Encinitas Traffic Light

The City Beautiful

The City Beautiful Campaign to perfect plans for a bigger, better and more enduring movement for further beautifying this already lovely land of ours seems too evident to call for particular attention. Especially is this true to those of us who have watched the work grow as we have listened to the little intimate stories of success and failure from the hundreds of newfound nature lovers who for the first time in their lives are tasting the keen delight which comes from watching things grow. Huge armfuls of lovely blossoms have found their way back to City Beautiful Headquarters—"From the garden you made possible for me."

For almost a full year, free distribution of plants, cuttings and seeds have been made each week day. To each person applying, from four to six varieties of seed have been given, with as many different plants and cuttings. Rarely a day has come when the number of applicants has fallen below one hundred. The records show hundreds of truck loads of plants and cuttings, with the little seed packets numbering into the hundreds of thousands, yet what does that tell of the healthy, happy moments spent in the great out-of-doors, preparing the soil, in planting and caring for the little flowers-to-be, of the days of anticipation and the final joy in the blossoming time.

So much the City Beautiful has done. The civic authorities have cooperated in their clean-up campaign—the banishing of unsightly vacant lots. The children of the schools have been interested, and in the curriculum, a study of plant life has been included and make an active factor. The slogan of the campaign, "A garden for every home," has become almost a verity. But the very success of the first effort makes the need for the future the more apparent; the necessity of concerted effort on the part of every organization which has at heart the advancement of San Diego as a Home City; to extol her natural advantages and to defend them from ruthless destruction; to work in harmony on some feasible plan for putting more trees upon her streets and devising some scheme of parking less kaleidoscopic than the one now generally employed; and most of all, to drive home to the heart of every resident of San Diego, the essential truth that love for the growing things, the encouragement of nature in her gifts to this beautiful city is not a side issue, a luxury of our Civic prosperity, but a fundamental factor in her growth and an absolute necessity to her success.

Scattered among the throng that center their hopes on factory chimneys, a forest of masts and the accompanying smoke and smell, are a few dreamers who have heard of the harbor of Rio de Janeiro, of Hamburg, of the Thames Embankment, and they have visions of a water park in the North Bay, a series of little islands, wonderful marine gardens, tied to the mainland by a beautiful arcade spanning the railroad tracks and reaching up to the Mission Hills. An architect has even drawn plans thus, and in spite of what crime may now be committed in the name of business development, the future must see this dream comes true because it is written in the mind that planned San Diego before even the Mission fathers taught the Indians to make mud bricks.

It is with a feeling of relief that we heard the Park Superintendent give voice in public to the sentiment that whole sections of Balboa should never be touched, meaning that the wild growth should be encouraged and not improved out of existence. We of the West are growing out of a completely unwarranted contempt for our native growths, and lest any should be inclined to self gratulation over this change, let it be noted that the reason therefor is obviously the endorsement of these growths to Europe and the Eastern States. England and Germany have worked with our California poppy till seed can be obtained covering a wide range of color, and now France is working with our Ceanothus and had long ago done many things with lupines.

To continue this subject of parks, the work accomplished during the last two years in Balboa is little short of miraculous considering the soil conditions. Many whole plots had to be excavated by blasting and soil hauled in, and the majority of trees are there by grace of giant powder. San Diegans should know and enjoy their park, and it would seem as if it were a legitimate part of the work of the park board to formulate a campaign to bring people and park closer together. It is conceivable that a weekly excursion to points of special interest conducted by someone with the necessary knowledge of plant life and the ability to impart the same, would be very popular and worth while. Miss Sessions could make such a trip intensely interesting and instructive. It is no part of the scope of a gardening magazine to be discursive on business conditions but it may assume that pruning will be popular in civic expenses as well as in orchards. If the people are to be expected to look cheerfully on an interested appropriation for park purposes, they should be shown that they are getting their money's worth, and this we believe they certainly are.

What air-castles one can build of the future of San Diego, with the flowers as the central feature. Trips to Palomar to view Rhododendrons and Azaleas in bloom; trips to the desert, to see the Cacti and desert flowers; trips to Ramona for wild lilacs, to Mesa Grande for cherries, and trips to Cuyamaca for pines and firs and fields of flowers. The auto is bringing the mountain tops and valleys closer to us daily.

WHEN YOU BUY
PLEASE say:
I SAW IT IN
CALIFORNIA GARDEN

San Diego Floral Association

FLORAL BUILDING, BALBOA PARK

(Under the sponsorship of
The Park and Recreation Dept., City of San Diego)

Third Tuesday, Floral Building, 8 p.m.
Pres. Mr. Stanley W. Miller 444-8141
1590 E. Chase Ave., El Cajon

FLOWER ARRANGERS' GUILD OF SAN DIEGO
First Thursday, Floral Building, 7:30 p.m.
Pres.: Mrs. John Casale 465-0997
9372 Loren Drive, La Mesa

AFFILIATE MEMBERS 1964

ALFRED D. ROBINSON BEGONIA SOCIETY
Third Friday, Homes of Members, 10 a.m.
President: Mrs. Clayton Lee 296-4845
3911 St. James Pl., S.D. 3
Rep. Dir.: Mrs. Anuta Lynch 298-1400
202 Lewis, S.D. 3

CIVIC CENTER GARDEN CLUB
Meets every Thursday 12m to 1 p.m.
Garden House, Grape and 101 Civic Center
President: James Saraceno 274-2628
3366 Lloyd St., S.D. 17
Rep. Betty Elias 415-3385
8121 Hudson Drive, S.D. 19

GENERAL DYNAMICS GARDEN CLUB
Second Wed., Floral Building, 7:30 p.m.
President: Danny Blum 582-2983
4730 Baylor Drive, S.D. 15
Rep. Dir.: J. E. Henderson 274-1754
3503 Yosemite, S.D. 9

MEN'S GARDEN CLUB OF SAN DIEGO CO.
Fourth Monday, Floral Bldg., 7:30 p.m.
Pres.: Ellsworth A. O'Bleness 223-0833
4636 Niagara St., S. D. 7
Rep.: Dr. J. W. Troxell 282-9131
4950 Canterbury Drive, S. D. 16

MISSION GARDEN CLUB
Meets First Monday 8 p.m.
Barbour Hall, Pershing and University
Pres.: Grace E. Brown 466-5638
7865 Quince St., La Mesa
Rep.: Julia Bohe 282-7422
3145 No. Mt. View Dr., S. D. 16

ORGANIC GARDENING CLUB
Third Friday, Floral Building, 7:30 p.m.
Pres.: Ferd I. Thebus 277-6899
4511 Mt. Gaywas Dr., S. D. 17
Rep. Mrs. Hermine Hilkowitz 296-2282
1756 Mission Cliffs Dr., S. D. 16

POINT LOMA GARDEN CLUB
First Friday, Silver Gate Savings &
Loan Bldg., Ocean Beach, 10:00 a.m.
Pres.: Mrs. Clyde Neal 583-2776
5459 Del Cerro Blvd., S.D. 20
Rep.: Mrs. Jack White 222-1344
1019 Cordova, S.D. 7

SAN DIEGO CACTUS & SUCCULENT SOCIETY
First Saturday, Floral Building, 2 p.m.
Pres.: William H. Nelson 298-3349
4253 Maryland St., S. D. 3
Rep.: Dr. Ralph Roberts 273-9085
2202 Wilbur St., S. D. 9

SAN DIEGO CAMELLIA SOCIETY
Second Friday, Floral Building, 7:30 p.m.
Pres.: Mrs. Althea Hebert 466-3389
8845 Country Club Pl., Spring Valley
Rep.: Mrs. Lester Crowder 295-5871
3130 Second St., S.D. 3

SD-IMPERIAL COUNTIES IRIS SOCIETY
Meets 3rd Sunday, Floral Bldg., 2:30 p.m.
Pres: James E. Watkins 728-7337
2925 Los Alisos Dr., Fallbrook
Rep. Mrs. N. R. Carrington 453-3383
6283 Buisson Street, S.D. 22

S. D. CHAPTER CALIF. ASS'N NURSERYMEN
Second and Fourth Thursday, 7:30 p.m.
Pres.: Charles Richards 422-3533
930 Fifth Ave., Chula Vista
Rep.: John Basney 273-4636
4731 Conrad Ave., S.D. 17

SAN DIEGO COUNTY DAHLIA SOCIETY
Fourth Tuesday, Floral Building, 7:30 p.m.
Pres.: Victor Kerley 224-1884
3765 James St., S.D. 6
Rep.: Mrs. R. M. Middleton 296-3246
3944 Centre St., S. D. 3

SAN DIEGO COUNTY ORCHID SOCIETY
First Tuesday, Floral Building, 8 p.m.
Pres.: Byron H. Geer 222-2044
3370 Talbot St., S.D. 6
Rep.: Byron H. Geer (above)

SAN DIEGO FUCHSIA SOCIETY
Second Monday, Floral Building, 8 p.m.
Pres.: Mrs. Charles Williams 224-5229
1094 Devonshire, S. D. 7
Rep.: Mrs. Walter Bunker 281-5027
4721 Bancroft, S.D.

SAN DIEGO ROSE SOCIETY
Third Monday, Floral Building, 8 p.m.
Pres.: Carl F. Truby 422-3350
1035 Monserate Ave., Chula Vista
Rep.: Mrs. Felix White 264-4440
5282 Imperial Avenue, S.D. 14

SOUTHWESTERN GROUP, JUDGES' COUNCIL

CALIFORNIA GARDEN CLUBS, INC.
First Wed., Floral Bldg., 10:30 a.m.
Chairman: Mrs. C. W. Benson 274-1626
3640 Crown Point Dr., S.D. 17

OTHER GARDEN CLUBS

AMERICAN BEGONIA SOCIETY

San Diego Branch
Fourth Monday, Barbour Hall, University & Pershing, 8 p.m.
Pres.: Mrs. Leah Jones 284-2514
3734 40th St., S.D. 5

San Miguel Branch
First Wednesday, Youth Center
Lemon Grove, 7:30 p.m.
Pres.: Mrs. J. W. Lowry 463-4762
7452 Roosevelt, Lemon Grove

CARLSBAD GARDEN CLUB
First Friday, VFW Hall, Carlsbad, 1:30 p.m.
Pres.: Mrs. Warda Bond
V.F.W. Hall, Pio Pico & Oak St., Carlsbad

CHULA VISTA FUCHSIA CLUB
Second Tuesday, Norman Park Recreation Center, 7:30 p.m.
Pres.: Mr. Lester Gibson 422-7642
1234 Second Ave., Chula Vista

CHULA VISTA GARDEN CLUB
Meets Third Wednesday, 1:30 p.m.
C. V. Woman's Club Bldg, 357 G St., C.V.
Pres.: Mrs. W. R. Ellis 422-9467
1065 Las Bavios Ct., Chula Vista

CLAIREMONT GARDEN CLUB
Meets Third Tuesday, 9:30 a.m.
Place announced at each meeting.
Pres.: Mrs. Stanley Fletcher 276-2520
3090 Chicago St., S. D. 17

CORONADO FLORAL ASSOCIATION
Meets Third Wednesday, 8 p.m.
Christ Church Parish Hall, Coronado
Pres.: Comdr. Phillip H. Dennler
339 B Ave., Coronado 435-3337

CROSS-TOWN GARDEN CLUB
Third Monday, Barbour Hall, University & Pershing, 8 p.m.
President: Charles Williams 284-2317
4240 46th, S.D. 15

CROWN GARDEN CLUB OF CORONADO
Fourth Thursday, Red Cross Bldg., 1113 Adella Lane, 9:30 a.m.
Pres.: Mrs. Olin W. Jones 435-8938
831 Olive Ave., Coronado 92118

DELCADIA GARDEN CLUB
First Wednesday, Encinitas Union Elementary School, 7:30 p.m.
Pres.: Mrs. Edwin C. Pickett 753-3890
1068 Devonshire, Encinitas

DOS VALLES GARDEN CLUB (PAUMA VLY.)
Second Tues., Members Homes, 1:30 p.m.
Pres.: Mrs. Ken Chapman 742-3381
Pauma Valley, 92091

ESCONDIDO GARDEN CLUB
Third Fri., Women's Club House, 1:30 p.m.
Pres.: Mrs. Leonard H. Cooper 744-0550
1011 W. Encinitas Rd., San Marcos

EVA KENWORTHY GRAY BR. (BEGONIA)
2nd Sat., 1:30 p.m., Seacoast Hall, Encinitas
President: Walter Watchorn 722-3501
1450 Hunsaker, Oceanside

FALLBROOK GARDEN CLUB
Last Thurs., Fallbrook Woman's Clubhouse, 1:30 p.m.
Pres.: Mrs. Tom John 728-7423
152 Emilia Lane, Fallbrook

GROSSMONT CENTER GARDEN CLUB
Second Monday, Orange Tree Rm. Auditorium—10 a.m.
Pres.: Mrs. Lowell E. Elson 469-8009
3451 Calavo Drive, Spring Valley

HIPS AND THORNS (Old Fashioned Roses)
Meets three times yearly.
Pres.: Roy C. Lawton 422-1775
719 First Ave., C.V.

IMPERIAL BEACH GARDEN CLUB
2nd Tues., So. Bay Com. Center, 1:30 p.m.
Pres.: Mrs. Leonor Gish 424-7182
630 Alabama, Imperial Beach

LAKESIDE GARDEN CLUB
2nd Mon., Lakeside Farm School, 7:30 p.m.
Pres.: Mrs. W. R. Kuhner 443-3163
P. O. Box 561, Lakeside

LA MESA WOMAN'S CLUB (GARDEN SEC.)
Third Thursday, La Mesa Woman's Club, 1:45 p.m.
Pres.: Mrs. Harry K. Ford 583-4320
4851 Lorraine Dr., S.D. 15

LEMON GROVE WOMAN'S CLUB
(GARDEN SECTION)
First Tuesday, Lemon Grove Woman's Club House, 1 p.m.
Pres.: Mrs. Gladys Short
8124 Alton, Lemon Grove

NATIONAL CITY GARDEN CLUB
Third Wednesday, National City Community Bldg., 7:30 p.m.
Pres.: Roy W. Daniels 282-0370
2462 Tuberose St., S.D. 5

O. C. IT GROW GARDEN CLUB
Second Wednesday, S. Oceanside School Auditorium, 7:30 p.m.
Pres.: Mrs. J. A. Johnson 722-2792
Rosicrucian Fellowship
P.O. Box 713, Oceanside

PACIFIC BEACH GARDEN CLUB
Meet second Monday, 7:30 p.m.
Community Club House, Gresham and Diamond Sts., Pacific Beach
Pres.: Mrs. Ethel Hansen 273-3501
3504 Ethan Allen, S.D. 17

POWAY VALLEY GARDEN CLUB
2nd Wed., 9:30 a.m. Community Church
Pres.: Mrs. Don Eddy 748-2872
12844 Montauk St., Poway

RANCHO SANTA FE GARDEN CLUB
Second Tuesday — Club House, 2:00 p.m.
Pres.: Mrs. Neil J. Randol 756-1603
Rancho Santa Fe

SAN CARLOS GARDEN CLUB
Fourth Tues., Homes of Members, 1 p.m.
Pres.: Mrs. Russell Loer 465-2172
6762 Jackson Drive, S. D. 19

SAN DIEGUITO GARDEN CLUB
Third Wednesday, Seacoast Savings Building, Encinitas, 10 a.m.
President: Mrs. Waldo Vogt 755-4772
773 Barbara Ave., Solana Beach

SANTA MARIA VALLEY GARDEN CLUB
Second Monday, Ramona Women's Club House, 5th and Main, 9:30 a.m.
Pres.: Mrs. Ara D. Sprague 789-0796
Rt. 1, Box 947, Ramona 92065

SPRINGHOUSE GARDEN CLUB
Third Thursday, Porter Hall, Univ. & La Mesa, 7:30 p.m.
President: Mr. R. M. Frodahl 469-1933
3852 Avocado, La Mesa

SWEETWATER GARDEN CLUB (adults)
Second Monday: Meets at home of Temporary President, 7:30 p.m.
Temp. Pres.: Cleoves Hardin 469-3038
9195 Harness Rd., Spring Valley

SWEETWATER JUNIOR GARDEN CLUB
First Monday, 7:30 p.m. Meets at home of Temporary President
Temp. Pres.: Cleoves Hardin 469-3038
9195 Harness Rd., Spring Valley

VISTA GARDEN CLUB
First Fri., Vista Rec. Center, 1:00 p.m.
Pres.: Mrs. W. L. Larsen
320 Mar Vista Dr., Vista, 92083

House & Garden Show

sponsored by
SAN DIEGO
BUILDING
CONTRACTORS
ASSOCIATION

Wednesday, April 21
thru Sunday, April 25
in San Diego's
new downtown
COMMUNITY CONCOURSE

100,000 square feet of fascinating
Garden and House Displays.
A huge House and Garden "Idea Mart"
featuring everything and anything having
to do with inside and outside garden and
household products, accessories and new ideas.

ENTERTAINMENT FEATURE:

The sensational
Ice Extravaganza

"SPICE ON ICE"

A complete, colorful Ice Show on the
Stage of the Exhibit Hall.
Several performances day and night.

OPEN
6 p.m. Wed., April 21
thereafter 1-10 p.m.

ADMISSION
Adults 85c
Children under 12 40c
Children under 6 Free

LARGEST HOUSE AND GARDEN SHOW IN SAN DIEGO'S HISTORY